CURTIS'S

BOTANICAL MAGAZINE;

OR

Flower Garden Displayed:

In which the most Ornamental FOREIGN PLANTS cultivated in the Open Ground, the Green-House, and the Stove, are accurately represented and coloured.

To which are added,

THEIR NAMES, CLASS, ORDER, GENERIC AND SPECIFIC CHARACTERS,

ACCORDING TO THE SYSTEM OF LINNÆUS;

Their Places of Growth, Times of Flowering, and most approved Methods of Culture.

CONDUCTED

By SAMUEL CURTIS, F. L. S.

THE DESCRIPTIONS

By SIR WILLIAM JACKSON HOOKER, K. H.

LL.D. F. R. A. and L. S. and Regius Professor of Botany in the University of Glasgow.

VOL. XI.

OF THE NEW SERIES;

Or Vol. LXIV. of the whole Work.

" To study culture, and with useful toil
To meliorate and tame the stubborn soil;
To give dissimilar, yet fruitful lands,
The grain, or herb, or plant that each demands;
To mark the matchless workings of the power,
That shoots within the seed of future flower,
Bids these in elegance of form excel,
In colour these, and these delight the smell,
Sends nature forth, the daughter of the skies,
To dance on earth and charm all human eyes;
These, these are arts pursued without a crime
That leave no stain upon the wings of time."

COWPER.

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1837.

TO

JAMES BATEMAN, ESQ.,

OF KNYPERSLEY HALL, CHESHIRE,

AUTHOR OF THE MAGNIFICENT

"ORCHIDACEÆ OF MEXICO AND GUATEMALA,"

A WORK,

OF WHICH IT IS HARD TO SAY

WHETHER THE BEAUTY OF THE SUBJECTS REPRESENTED,

THE EXECUTION OF THE FIGURES, OR THE TASTE AND JUDGMENT

DISPLAYED IN THE TYPOGRAPHICAL DEPARTMENT,

IS MOST TO BE ADMIRED;

THE PRESENT VOLUME IS DEDICATED,

WITH SENTIMENTS OF HIGH REGARD

AND ESTEEM,

BY HIS OBEDIENT,

FRIEND AND SERVANT,

W. J. HOOKER.

GLASGOW, December 1, 1837.

W. Fitch del.t

Pub. by S. Curtis, Glazenwood Essex, Jan.1 1837.

Swan Sc.

HIPPEASTRUM AMBIGUUM : *var.* 1. longiflora. AMBIGUOUS KNIGHT'S-STAR LILY : *var.* 1. long-flowered.

****

Class and Order.

HEXANDRIA MONOGYNIA.

(Nat. Ord.—AMARYLLIDEÆ.)

Generic Character.

Perianthium declinatum, tubo infra abbreviato, membranâ fauciali non annulari, limbo quater dispare; *Scapus* spathaceus cavus, capsula trivalvis, semina testâ nigra. *W. Herbert.*

Specific Name and Character.

HIPPEASTRUM *ambiguum;* perianthio tubuloso, segmentis intus rubro bistriatis, fauce læviter barbata, stylo filamenta superante perianthium subæquante stigmate trifido.

Var. I. *Longiflora;* perianthio 8 unciali. Ex Lima, Peruviæ allata. *Tab. nostr.* 3542.

Var. II. *Tweediana;* perianthio subsexunciali. *Specim. Herb. Hooker. (Tweedie.)* Ex Brasiliæ meridionali ? *W. H.*

Several bulbs of this plant were received from J. MACLEAN, Esq. by Mr. MURRAY, from Lima, and have flowered magnificently in the Glasgow Botanic Garden. The inflorescence is remarkably like that of the mules obtained by the admixture of H. *solandriflorum* with H. *Reginæ-vittatum,* crossed again with *vittatum.* The beard is fainter than in H. *vittatum,* and the plant occupies an intermediate situation between this species and H. *solandriflorum.* Whether it be a garden production at Lima, or exhibits a natural local variation of the Genus, we have no means of ascertaining; it seems principally distinguished from TWEEDIE'S specimen

specimen gathered on the East coast of the continent by the superior size, and, perhaps, paler colour. The Valley of Lima is so small, the distance being only seven or eight miles from the steep granite mountains to the sea, and the breadth of the plain very inconsiderable, that it is probably not a native of the immediate vicinity of Lima. *W. Herbert.*

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Pub.by S. Curtis. Glaxenwood Essex Dec.r 1 1836.

Swan. Sc

EPIDENDRUM CRASSIFOLIUM. THICK-LEAVED EPIDENDRUM.

****

Class and Order.

GYNANDRIA MONANDRIA.

(Nat. Ord.—ORCHIDEÆ.)

Generic Character.

Sepala patentia, subæqualia. *Petala* sepalis æqualia vel angustiora, rarius latiora, patentia vel reflexa. *Labellum* cum marginibus columnæ omnino vel parte connatum, limbo integro vel diviso, disco sæpius calloso, costato vel tuberculato ; nunc in calcar productum ovario accretum et auriculum formans. *Columna* elongata ; clinandrio marginato, sæpe fimbriato. *Anthera* carnosa, 2—4-locularis. *Pollinia* 4, caudiculis totidem replicatis annexa.—Herbæ *(Americanæ) epiphytæ, caule nunc apice vel basi pseudobulboso, nunc elongato apice folioso.* Folia *carnosa, rarissime venis elevatis striata.* Flores *spicati racemosi, corymbosi, vel paniculati, terminales vel laterales. Lindl.*

Specific Character and Synonyms.

EPIDENDRUM *crassifolium ;* foliis distichis oblongo-lanceolatis crassiusculis acutis, caule apice longe aphyllo squamoso, squamis superioribus lineari-oblongis æqualibus labelli trilobi lobis lateralibus dimidiatis denticulatis, intermedio obcordato denticulato majore basi calloso, callo carnoso concavo margine lobato, racemo brevi subcorymboso.

EPIDENDRUM crassifolium. *Lindl. Gen. et Sp. Orchid. p.* 107.

EPIDENDRUM ellipticum. *Lodd. Bot. Cab. t.* 1276. (not Grah.)

This plant is a native of Rio Janeiro ; and the Glasgow Botanic Garden is indebted for the possession of it to the well-

well-known liberality of Mr. Loddiges. It is undoubtedly the plant figured in the Botanical Cabinet under the name of E. *ellipticum*, which Dr. Lindley refers to his E. *crassifolium*: but I am far from certain that the two are really the same species. The leaves in Mr. Loddiges are by no means thick for this groupe of Epidendrum, they are not obtuse, nor concave, and the shape of the middle lobe of the lip is different. Whilst ours is a Brazilian plant, the original E. *crassifolium* is a native of St. Vincent. Be that as it may, ours is an exceedingly pretty and lively-looking species, many stems in the same pot bearing their heads of bright, rose-coloured flowers in the month of March.

Descr. *Stems* erect, wavy, terete, leafy; *leaves* distichous, alternate, oblong, patent, or slightly recurved, oblongo-lanceolate, moderately thick, and somewhat coriaceous, rather acute, obscurely striated, sheathing at the base, of a dark, glossy, green colour. The extremity of the stem runs out into a long jointed *peduncle*, sheathed with membranous *bracteas*, of which the upper ones have a tendency to become leafy. *Spike* corymboso-capitate. *Flowers* full rose-colour. *Sepals* and *petals* obovato-lanceolate, spreading, nearly equal. *Lip* uppermost, its claws combined with the nearly triquetrous *column*, at the apex of which, the anther is sunk in a sort of cavity; *laminæ* of the lip deeply three-lobed, toothed, lateral lobes rotundato-cuneate, entire, the middle one the largest, obcordate: the disk fleshy, concave, with a thick waved and lobed border.

Fig. 1. Column and Lip:—*magnified.*

W. Fitch del.t

Pub. by S. Curtis Glaxerwood Essex Jan.1.1837.

Swan Sc

SISYRINCHIUM SPECIOSUM. SHOWY SISYRINCHIUM.

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Class and Order.

TRIANDRIA MONOGYNIA.

(Nat. Ord.—IRIDEÆ.)

Generic Character.

Spatha diphylla. *Perianthium* simplex, corollinum, profunde 6-partitum, æquale. *Filamenta* connata. *Stylus* simplex. *Stigma* trifidum. *Capsula* 3-locularis, infera.

Specific Name and Character.

SISYRINCHIUM *speciosum ;* bulbosum, caule tereti flexuoso subramoso, foliis linearibus angustis striatis præcipue radicalibus caulem subæquantibus, spatha biflora, floribus speciosis, perianthii foliolis patentissimis oblongo-spathulatis (purpureo-cæruleis basi intense flavis) filamentis liberis, stylo tripartito ramis patentibus linearibus superne canaliculatis, stigmatibus emarginatis velutinis.

A native of Chili, whence bulbs were imported by Mr. TOWART (gardener to Her Royal Highness the Dutchess of Gloucester, Bagshot Park), and by him communicated to Mr. MURRAY, at the Glasgow Botanic Garden. The same beautiful species has been sent from Valparaiso in Chili, by Mr. CUMING, and distributed as No. 498 of his Herbarium ; by Mr. MATHEWS, No. 308 ; and by Mr. BRIDGES, No. 415 : and again by the last-mentioned collector (in one instance bearing a remarkably broad leaf) from marshy places near Valdivia (No. 252). About Valparaiso, it is found on sandy hills ; and a dry and light soil, with a sunny situation in the greenhouse, are what are required to bring this beautiful plant to perfection in our country. It has flowered with us in June.

Descr. *Bulb* ovate, enveloped with a dark brown, membranous and loose coat, which forms a sheath considerably above the bulb. *Stem* three to four or five inches high, slender, rounded, wavy, somewhat branched, glaucous. At the origin of a branch bearing a leaf with a sheathing base, which produces flowers like the spatha. *Leaves* mostly radical, distichous, linear, narrow-acuminate, deeply striated, sheathing at the base, the inner ones about as long as the stem. *Spatha* of two unequal leaves, about two-flowered. *Peduncle* an inch long, curved. *Perianth* of six oblongo-spathulate, bright purple-blue *sepals*, yellow at the base, slightly waved, spreading, the three inner ones a little smaller: *Stamens* three: *Filaments* inserted a little above the base of the perianth, nearly erect, free, yellow, broader at the base. *Anthers* orange, linear-oblong, eventually twisted. *Style* yellow below, dividing into three spreading slender branches, which are longer than the *stamens*, purple, grooved above. *Stigmas* velvety, emarginate. *Ovary* inferior, oblong, glabrous.

Fig. 1. Flower, with the Perianth removed. 2. The same, with the Stamens also removed:—*magnified*.

W. Fitch del.t

Pub. by S. Curtis, Glazewood, Essex. Jan. 1. 1837.

Swan Sc.

ŒNOTHERA FRUTICOSA, *var.* ambigua.
SHRUBBY EVENING PRIMROSE, *var.*

****

Class and Order.

OCTANDRIA MONOGYNIA.

(Nat. Ord.—ONAGRARIEÆ.)

Generic Character.

Calyx tubulosus, 4-partitus, deciduus. *Petala* 4. *Capsula* cylindrica vel prismatica, 4-locularis. *Semina* nuda, cortice fungoso placentæ columnari centrali affixa. *Spreng.*

Specific Character and Synonyms.

ŒNOTHERA *fruticosa;* perennis glabra vel pilosa, caule erecto herbaceo, foliis sublanceolatis dentatis punctis linearibus pellucidis notatis, floribus terminalibus corymbosis, calycibus acuminatis, capsulis pedicellatis clavatis 4-alatis.

(α.) *vera;* corymbis pedunculatis, petalis late obcordatis.
ŒNOTHERA fruticosa. *Linn. Sp. Pl. p.* 492. *Hook. Fl. Bor. Am. v.* 1. *p.* 212. *Nutt. Gen. Am. v.* 1. *p.* 247. *Torrey Fl. of Un. St. p.* 389.

(β.) *ambigua;* corymbis pedunculatis, petalis longioribus quam latis.—Œ. fruticosa, β. *ambigua. Nutt. l. c. Torrey l. c. (Tab. nostr.* 3545.)
ŒNOTHERA ambigua. *Spreng. Syst. Veget. v.* 2. *p.* 229. *De Cand. Prodr. v.* 3. *p.* 50.
ŒNOTHERA Canadensis. *Gold. in Ed. Phil. Journ.* 1821, *p.* 7. *De Cand. Prodr. v.* 3. *p.* 52.

(γ.) *phyllopus;* pedunculo folioso, (seu corymbo sessili.)
ŒNOTHERA fruticosa. *Curtis Bot. Mag. t.* 332. *De Cand. Prodr. v.* 3. *p.* 50.
ŒNOTHERA serotina. *Sw. Br. Fl. Gard. 2d Ser. t.* 184. *Lindl. Bot. Reg. t.* 1840.

(δ.) *incana;* foliis elliptico-lanceolatis incano-pilosis.
ŒNOTHERA incana. *Nutt. Gen. Am. v.* 1. *p.* 52. *De Cand. Prodr. v.* 3. *p.* 52. *Torrey Fl. of Un. St. v.* 1. *p.* 389.

(γ.) *Fraseri;* glaberrima, foliis elliptico-lanceolatis.

ŒNOTHERA

ŒNOTHERA Fraseri. *Pursh Fl. Am. Suppl. p.* 734. *Nutt. Gen. Am. v.* 1. *p.* 247. *Sims, Bot. Mag. t.* 1674. *De Cand. Prodr. v.* 3. *p.* 51.

(δ.) *linearifolia ;* foliis lineari-lanceolatis.—An Œ. linearis. *Mich. et auct. ?*

ŒNOTHERA *fruticosa* is a species, widely extended throughout North America, from Canada to Carolina ; but so variable in its foliage and hairiness, as to have suggested the idea of there being the several species above enumerated. The only kind, about which I feel at all doubtful, is the Œ. *linearis* of MICHAUX, whose leaves, besides being very narrow, are more opaque, and exhibit the pellucid linear dots, above alluded to, very imperfectly. Indeed, they are not seen in the recent state of the true *fruticosa*. LINNÆUS made it one of the characters of his original plant, that it should have the raceme *pedunculated ;* which is very often not the case with our species, as represented in an early plate of this Magazine, on which account I have reduced that to a *variety*. SPRENGEL and DE CANDOLLE have raised the state of the plant here figured to the rank of a species, which, I think, it by no means merits. Œ. *Fraseri* and Œ. *incana* I consider to be broad-leaved varieties of Œ. *fruticosa ;* the former remarkable for its freedom from hairs, (it is found plentifully by Dr. SHORT at Kentucky,) while the latter, of which I possess specimens from Wabash, gathered by Mr. GOLDIE, is abundantly clothed with hairs. An exactly intermediate state is found at West Chester, by Mr. TOWNSEND. Our β. *ambigua* was communicated by Mr. MILLER of the Bristol Nursery to the Glasgow Botanic Garden ; where, slightly sheltered, it flowered in July. Although the stem is very downy, the peduncle is quite glabrous, and instead of leaves, as in *var.* γ, there are only small, linear bracteas at the base of the short pedicels. It may be thus described :—

DESCR. *Root* perennial. *Stem* annual and herbaceous, as in all the varieties, erect, mostly simple, very downy. *Leaves* lanceolate, toothed, more or less distinctly ; slightly downy. *Peduncles* terminal, quite glabrous, naked below, bearing a *corymb of flowers*, which afterwards elongates into a *raceme*. *Flowers* large for the size of the plant, handsome, rather pale yellow. *Pedicels* short, with a small, linear *bractea* at the base. *Calyx* acuminated. *Petals* four, narrow, obcordate, striated, spreading. *Fruit* immature, oblongo-clavate, with four broad wings, and as many moderately elevated, obtuse angles.

Fig. 1. Lower Leaf, *nat. size.* 2. Immature Capsule, *magnified.*

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TRADESCANTIA CARICIFOLIA. SEDGE-LEAVED SPIDER-WORT.

****

Class and Order.

HEXANDRIA MONOGYNIA.

(Nat. Ord.—COMMELINEÆ.)

Generic Character.

Calyx et *Corolla* profunde tripartita. *Filamenta* subvillosa. *Capsula* 3-locularis. *Spr.*

Specific Name and Character.

TRADESCANTIA *caricifolia;* erecta glaberrima gracilis, foliis lineari-attenuatis subtus carinatis vaginis ciliatis, umbella sessili terminali congesta, bracteis lineari-acuminatis.

Allied to the common *Garden Spider-wort,* (T. *Virginica*) differing, however, in its much smaller size, slenderer habit, much narrower leaves and bracteas, and in the entire freedom from hairs of every part of the surface of the plant, the margins of the sheath alone being ciliated. The colour of the flowers is variable, for in some of the dried native specimens they are decidedly of a rose-colour, and if we look to the character usually given of T. *rosea,* MICH., we shall find it to accord pretty well with our plant, though in reality no two species can be more distinct; the latter being very small in every part, with pedunculated umbels. Our plant is a native of Texas, where it was found by Mr. DRUMMOND. With us it has flowered in August and September, under a cool frame.

DESCR. *Stem* a foot or more high, quite erect, simple or branched, rounded, glabrous, jointed. *Leaves* arising from the joints, eight to ten inches long, half an inch across in the widest part, linear-acuminated, quite glabrous, striated, sheathing

sheathing at the base, the sheaths ciliated at the margins. *Involucre* of two unequal *bracteas*, of the same shape as the leaves, but shorter. *Umbel* sessile, terminal, of many *pedicels*, at first curved downwards, then erect. *Calyx* of three green, glabrous *sepals*, tipped with purplish. *Corolla* of three broadly-ovate, spreading *petals*, thrice as long as the calyx, and of a fine purplish-blue colour. *Stamens* six, equal in length; *filaments* blue, clothed with long, shaggy, blue hairs: *Anthers* deep yellow.

Fig. 1. Flower: *magnified.*

W. Fitch del.

TULBAGHIA LUDWIGIANA. LUDWIG'S TULBAGHIA.

****

Class and Order.

HEXANDRIA MONOGYNIA.

(Nat. Ord.—LILIACEÆ. *Lindl.*)

Generic Character.

Spatha bivalvis, multiflora. *Corolla* urceolato-infundibuliformis ; *tubus* cylindricus, erectus ; limbi laciniæ 6, profundæ, æquales, lanceolatæ, patentes. *Corona* (vel *Nectarium*) e foliolis 3 distinctis vel in tubum connatis, fissis, æqualibus, carnosis. *Stamina* 3 in fauce tubi, 3 intra tubum. *Antheræ* subsessiles, ovatæ. *Stylus* teres, tubo multo brevior. *Stigma* turbinatum, depressum. *Capsula* ovata, trigona, trilocularis ; valvulis 3, emarginatis. *Semina* numerosa, oblonga, obtusa, compressa, corrugata. *Lam.*

Specific Name and Character.

TULBAGHIA *Ludwigiana ;* floribus erecto-patulis, limbo tubum crassum subangulatum æquante, perianthio interno carnoso flavo trilobo, lobis obtuse emarginatis. *Harv.*

TULBAGHIA Ludwigiana. *Harv. MSS.*

Bulbs of this species were sent to the Ludwigsburg Gardens, Cape of Good Hope, from the borders of Cafferland, by Mr. ZIER in 1834, and have now (Oct. 1835) come into flower there for the first time. In many characters it approaches T. *alliacea ;* but is amply distinguished from that species by the distinctly three-lobed, bright yellow, interior perianth. I have great pleasure in distinguishing it with the name of my valued friend, the Baron von LUDWIG, whose well-known patronage of Botany amply entitles him to any honour

honour that Science can bestow, and to whom the South African Botanist in particular is under great obligations. Through his means many new plants have already been disseminated in Europe, and many more may be expected from the constant exertions he is making to procure bulbs and seeds from the most remote parts of the colony. *Harv.*

Descr. *Root* (?). *Root-leaves* distichous, six to eight inches long by an inch wide, numerous, patent, ensiformi-ligulate, somewhat acute, flexuose, rigid, glabrous, bright green. *Scape* erect, glabrous, filiform, two feet and more high. *Flowers* umbellate,—when in bud, drooping,—afterwards patent and erect. *Umbel* simple, about eight-flowered. *Spatha* two-valved: *valves* ovate, acute, membranaceous, sphacelate; the exterior large, and equalling the peduncle in length. *Peduncles* one to two inches long, slender, filiform. *Exterior Perianth* of one piece, inferior, patent: *tube* short, half an inch long, its length about equalling the breadth, obtusely angular, gibbous at the base, greenish-purple, or green with purple streaks: the *limb* six-partite, its segments ovate, obtuse, plane, as long as the tube, green with a purple margin, in a double series, the three inner ones a little longer and adnate with the sides of the inner perianth, the three outer free, spreading. *Inner perianth* forming a crown to the mouth of the tube, thick, fleshy, yellow, a little shorter than the outer, mouth triangular, three-lobed: *lobes* emarginate, or obsoletely bidentate. *Filaments* none (or rather they are adnate with the tube of the perianth.) *Anthers* six, sessile, in a double series: the three superior inserted under the apices, the three inferior in the axils of the lobes, two-celled: *cells* bursting longitudinally. *Ovary* oval, glabrous, marked with resinous dots, obsoletely six-grooved, three-celled. *Ovules* numerous: *Style* erect, cylindrical, about equal in length with the germen: *Stigma* subcapitate, truncate. *Smell* strong, resembling that of Onion. *W. H. Harvey.*

No apology, we trust, is necessary for representing this and another very pretty species shortly to be figured, of Tulbaghia, as we are quite sure the Baron von Ludwig will have pleasure in introducing them to our collections.

Fig. 1. Flower cut open. 2. Pistil. 3. Section of the Ovary:—*magnified.*

W. Fitch del.

Pub. by S. Curtis, Glasenwood E[illegible]

MADIA ELEGANS. ELEGANT MADIA.

****

Class and Order.

SYNGENESIA SUPERFLUA.

(Nat. Ord.—COMPOSITÆ.)

Generic Character.

Radius fæmineus uniserialis. *Discus* hermaphroditus. *Corolla* radii lingulata, lingula triloba tubum superante. *Achænium* erostre, quadrigono-compressum, quadricostatum disco epigyno parvo.—Herbæ *Chilenses, virides, erectæ; foliis alternis, semiamplexicaulibus, oblongis; capitulis luteis, terminalibus vel axillaribus; rachide plana, nuda; involucris uniserialibus pubescentibus. Less.*

Specific Character and Synonyms.

MADIA * *elegans;* panicula multiflora, radio elongato.
MADIA elegans. *Don in Bot. Reg. t.* 1458.
MADARIA † elegans. *De Cand. Prodr. v.* 5. *Not. sur les Pl. rares de Genève, n.* 7. *p.* 17.

A hardy annual, clothed with the same clammy and fetid pubescence as the common MADIA *viscosa* of Chili; but, instead of having very small and imperfect rays, as in that species, they are developed and spreading so as to give a totally different appearance to the plant. It is a native of North-West America, where it was discovered by the late Mr. DAVID DOUGLAS, and through him introduced to the Horticultural

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* From *Madi*, the vernacular name of the plant in Chili.

† The volume of DE CANDOLLE'S *Prodromus*, where the character of this genus, MADARIA, is given, not having reached me, although published, at the time this sheet went to press, I have been unable to avail myself of that author's essential characteristic marks; and have, hence, for the present, been induced to give the plant under its old appellation.

Horticultural Society. With us it blossoms through most of the summer months, and is already become a general favourite in our flower borders.

Descr. *Stem* erect, two to four feet high, much branched and panicled above, clothed, as is the whole plant, with unctuous fetid hairs, many of which are tipped with globular black glands. *Leaves* sessile, oblongo-lanceolate, the upper ones obscurely nerved, the lower ones larger and broader, with more evident parallel nerves, and a few transverse connecting ones. *Panicle* much branched, leafy. *Flowers* numerous, large, handsome. *Involucre* subglobose, of a nearly simple series of channelled, subulato-lanceolate scales, their points only spreading. *Corollas of the ray* oblong, deeply and sharply three-cleft, yellow, with a blood-coloured spot at the base, bearing *pistils* only. *Style* short. *Stigmas* subulate: *Achenia* embraced by the scales of the involucre, obovato-oblong, laterally compressed; *disc* oblique; *pappus* none. *Florets of the centre* with abortive pistils, tubular, hairy below and at the apex. *Anthers* protruded, as is the *stigma*, which is downy, and the segments are combined. *Receptacle* conical, downy, bearing a row of scales only within the floret of the ray.

Fig. 1. Abortive Floret of the Disk. 2. Floret of the Ray, of which the lower part is embraced by the involucral Scale. 3. Achenium.—*Magnified.*

W.m Fitch del.

Pub. by S. Curtis. Glasenwood Essex. Feb. 1. 1837.

HIPPEASTRUM BREVIFLORUM. SHORT-FLOWERED KNIGHT'S-STAR LILY.

Class and Order.

HEXANDRIA MONOGYNIA.

(Nat. Ord.—AMARYLLIDEÆ.)

Generic Character.

Perianthium declinatum, tubo infra abbreviato, membranâ fauciali non annulari, limbo quater dispare; *Scapus* spathaceus cavus, capsula trivalvis, semina testâ nigra. *W. Herbert.*

Specific Character.

HIPPEASTRUM *breviflorum;* pedunculis $2\frac{1}{2}$ uncialibus, tubo $\frac{1}{4}$ unc. rubro striato, limbo 2 unciali albo stella lutescente rubro-lineata parte inferiore obsoleta, stylo filamenta superante perianthium vix æquante, stigmate trifido. *W. Herbert.*

A very distinct species of a most difficult Genus, of which roots and dried specimens have been sent by Mr. TWEEDIE from the neighbourhood of Buenos Ayres. The specimen from which the accompanying figure was taken, blossomed in the stove of the Glasgow Botanic Garden in April, 1836, and promises to be a valuable acquisition to our collections. I am indebted to the Hon. and Rev. W. HERBERT, for its specific name and character.

DESCR. *Scape* nearly three feet high, rounded, glaucous. *Spatha* of two lanceolate, membranous leaflets. *Umbel,* in our specimen, of six flowers, destitute of fragrance. *Pedicels* obtusely tetragonal. *Perianth* campanulate, its length equalling the diameter at the mouth, formed of six pieces, of which the five upper ones are rather broader than the rest, lanceolate and more closely placed, wavy towards the apex,

apex, white, striated; externally slightly tinged with yellow-green, and marked with a central broad, red streak, vanishing below the middle; within, the same red streak is separated by a white line down the middle. The disk, at the base within, closely surrounds the filaments, and is strongly ciliated. *Germen* obovato-trigonous. *Style* rather shorter than the perianth, curved upwards, flesh-coloured. *Stigma* of three linear lobes. *Filaments* also assurgent; three alternate ones shorter; all shorter than the style, flesh-coloured.

W Fitch del^t

Pub. by S. Curtis, Glazenwood Essex, Feb. 1 1837

LOBELIA POLYPHYLLA. MANY-LEAVED LOBELIA.

****

Class and Order.

PENTANDRIA MONOGYNIA.

(Nat. Ord.—LOBELIACEÆ.)

Generic Character.

Corolla tubo hinc fisso (raro integro); limbo 5-partito. *Antheræ* connatæ. *Stigma* bilobum (nunc indivisum). *Capsula* 2-locularis (raro 3-locularis) apice supero bivalvi. *Br.*

Specific Character and Synonyms.

LOBELIA *polyphylla;* suffruticosa, foliis late oblongo-lanceolatis brevissime petiolatis coriaceis confertis argute serratis glaberrimis, racemo folioso, pedicellis pubescentibus folio brevioribus, calyce hemisphærico-pubescente dentibus subulatis integerrimis, corolla pubescente pedicello longiore.

LOBELIA polyphylla. *Hook. et Arn. in Bot. Journ. v.* 1. *p.* 277. *Bot. of Beech. Voy. v.* 1. *p.* 33.

A very handsome species of LOBELIA, of which our first knowledge was derived from specimens collected at Valparaiso during Capt. BEECHEY's Voyage. It was afterwards gathered in the same country by Mr. BRIDGES and Mr. CUMING. The *var.* "β. foliis angustioribus," found by Mr. CUMING at Coquimbo, we now incline to consider a new species, having quite entire leaves. Our drawing was taken from a fine flowering specimen sent by Mr. KNIGHT of the King's Road, Chelsea, to the Glasgow Botanic Garden, in September, 1835.

DESCR. It is a perennial plant, and suffruticose; a foot, or more high, branched; the *branches* rounded, glabrous, thickly

thickly clothed with leaves, which are from two to four inches long, erecto-patent, coriaceous, oblongo-lanceolate, acute, scarcely petiolate, of a bluish-green, and paler beneath, reticulated with veins, the sides often turned upwards, the margin furnished with numerous sharp, irregular teeth, which, under a glass, seem enlarged or glandulose at the extremity. *Raceme* terminal, leafy, the *leaves* often so reduced in size, as to resemble *bracteas*, as in the specimen here figured: at other times, the leaves are as large as those of the stem, and then the *flowers* may truly be said to be solitary and axillary, often terminated with a crown of barren leaves. *Pedicel* shorter than the bractea or leaf, downy. *Calyx* (including the *germen*) with an hemisphærical *tube*, green, slightly downy, with five, erect, subulate teeth. *Corolla* of a deep blackish, or blood-purple colour, thrice as long as the calyx, curved, with a deep cleft above, through which the column of *stamens* and *style* ascends, the segments slightly downy, spathulate, combined at their apices. *Filaments* purple. *Anthers* closely combined, curved, brownish ash-coloured, the two lower ones slightly bearded at the apex.

Fig. 1. Flower and Bractea; *magnified*. 2. Leaf: *nat. size*.

W. Fitch del.t

Pub. by S. Curtis Glazenwood Essex. Feb. 1 1837.

GAILLARDIA BICOLOR; *var.* Drummondii, integerrima. TWO-COLOURED GALARDIA; Drummond's entire-leaved *variety*.

Class and Order.

SYNGENESIA FRUSTRANEA.

(Nat. Ord.—COMPOSITÆ.)

Generic Character.

Receptaculum paleaceum, hemisphæricum. *Pappus* paleaceus. *Involucrum* imbricatum, planum, polyphyllum. *Corollæ radii* trifidi.

Specific Character and Synonyms.

GAILLARDIA *bicolor;* radii corollis 3—5-dentatis, tubo brevi inappendiculato, involucri foliolis plurimis subulato-lanceolatis.

GAILLARDIA bicolor (for Synonyms and several varieties see Tab. 3368).

Var. β. DRUMMONDII *integrifolia;* foliis omnibus integerrimis. *(Tab. nostr. 3551.)*

GALARDIA picta. *Sw. Brit. Fl. Gard. t.* 267.

This beautiful plant, which we still hold to be only a variety of G. *bicolor*, is identical with the G. *picta* of the "British Flower-Garden," and in reality differs in no respect from our *var. Drummondii*, except in having all the leaves entire. It is derived too from the same country, having been found in Texas by Mr. DRUMMOND, and introduced by him to our gardens, in the spring of the year 1835. We have figured it the more readily, because it affords us an opportunity of pointing out clearly the specific differences between it and our G. *trifidum*.

Fig. 1. Root Leaf; *nat. size.* 2. Floret of the Ray. 3. Floret of the Disc. 4. Scale of the Pappus:—*magnified.*

1
2
3
4

LACHENALIA GLAUCINA. GLAUCOUS-FLOWERED LACHENALIA.

Class and Order.

HEXANDRIA MONOGYNIA.

(Nat. Ord.—ASPHODELEÆ.)

Generic Character.

Corolla 6-petala vel 6-partita, campanulato-cylindrica et campanulata ; petalis 3 interioribus longioribus, extimis subcalycinis magis acutis. *Stamina* erecta, basi petalorum inserta. *Antheræ* incumbentes. *Stylus* subulatus, stigmate simplici vel obsolete trifido. *Capsulæ* 3-alata vel ovato-triquetra, 3-locularis. *Semina* plura, globosa, biseriata. *Jacq.*

Specific Character and Synonyms.

LACHENALIA *glaucina ;* foliis geminis oblongis, floribus sessilibus, petalis interioribus duplo longioribus apicibus patulis obtusis, stylo staminibusque paulo longioribus inclusis.

LACHENALIA glaucina. *Jacq. Coll. Suppl. p.* 39. *Ic. Rar. t.* 391. *Ait. Hort. Kew. ed.* 2. *v.* 2. *p.* 284. *Spreng. Syst. Veget. v.* 2. *p.* 78.

(α.) flore pallide cærulescenti, scapo foliisque immaculatis.

(β.) flore lilacina, scapo foliisque maculatis.

A very handsome species of LACHENALIA, for the possession of which the Glasgow Botanic Garden is indebted to Baron LUDWIG, of the Cape of Good Hope. There are two *varieties*, of which the principal figure here given represents the original species of JACQUIN, with spotless leaves and scape, and which, with us, has the palest and bluest flowers (always changing, however, to lilac as they fade): while the other has its leaves and scape spotted, and

and the flowers are, even in their youngest state, more inclined to lilac or rose colour. Of the latter kind a single flower is given at fig. 5. Its flowering season in this country is August.

Descr. *Bulb* small, roundish, about the size of a hazel nut. *Leaves* two, oblong, striated, erecto-patent, in α destitute of spots; in β spotted. The *scape* varies in the same way, and is below the spike, a length about equal to that of the leaves, covered with a glaucous bloom. *Spike* many-flowered. *Bracteas* small, subulate. *Flowers* sessile, about an inch long. Outer segments of the perianth (which might well be called a calyx) oblongo-ovate, erect, with a gland just below the apex, of a yellowish-green colour at the base, blue, or rose-coloured in β, and more or less dotted with blue: inner segments twice as long as the outer, spathulate, obtuse, erect, spreading only at the extremity. *Stamens* unequal, shorter than the style: both are ascending and included. *Filaments* subulato-filiform, white. *Anthers* very small, yellow. *Germen* ovato-globose, three-lobed, green. *Stigma* capitate.

Fig. 1. Flower. 2. Pistil. 3. 4. Stamens. 5. Flower of β.:—all slightly *magnified.*

Pub. by S. Curtis, Clarence wood Essex, Feb. 1 1837

DESMODIUM CANADENSE. CANADIAN DESMODIUM.

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Class and Order.

DIADELPHIA DECANDRIA.

(Nat. Ord.—LEGUMINOSÆ.)

Generic Character.

Calyx basi bibracteolatus ad medium obscure bilabiatus, labio superiore bifido, inferiore 3-partito. *Corolla* papilionacea, vexillo subrotundo, carina obtusa non truncata, alis carina longioribus. *Stamina* diadelpha (9 et 1), filamentis subpersistentibus. *Legumen* constans articulis plurimis ad maturitatem secedentibus compressis monospermis membranaceis coriaceisve, non aut vix dehiscentibus. *D C.*

Specific Character and Synonyms.

DESMODIUM *Canadense;* caule erecto pilosiusculo striato, foliis pinnatim trifoliolatis, foliolis oblongo-lanceolatis obtusis glabriusculis, stipulis filiformibus, racemis terminalibus, leguminis articulis 4—5 ovalibus obtuse triangulis pube brevi hispidis.

DESMODIUM Canadense. *De Cand. Prodr. v. 2. p. 328. Hook. Fl. Bor. Am. v. 1. p. 154.*

HEDYSARUM Canadense. *Linn. Sp. Pl. p. 1054. Pursh, Fl. Am. v. 2. p. 481. Spreng. Syst. Veg. v. 3. p. 313.*

A very frequent inhabitant of North America, from Canada to the extreme Southern States; and though, I believe, far from common in the collections of this country, it deserves a place in every garden, on account of its numerous racemes of handsome flowers. It is, as may be supposed, perfectly hardy, and blossoms with us in July.

DESCR. *Stem* one and a half to two feet and more high, erect,

erect, branched, striated, more or less hairy, panicled above. *Leaves* pinnately trifoliolate, on very short *petioles*, with a linear-subulate downy *stipule* on each side. *Leaflets* petiolulate, two to three inches long, oblongo-lanceolate, obtuse, more or less downy. *Racemes* terminal, often branched, bearing many flowers. *Pedicels* short. *Calyx* two-lipped, hairy, reddish-green; *upper lip* broad, bifid; *lower* in three deep, lanceolate segments. *Corolla* of a fine purple rose-colour. *Vexillum* large, soon reflexed, with two white spots at the base of the limb, which are surrounded by a dark ring: *Alæ* nearly as long as the vexillum, oblong, obtuse, enclosing the carina. *Legume* about an inch and a half long, of generally five oval, or obscurely and bluntly triangular, downy joints, mostly tipped with the permanent style.

Fig. 1. Side view of a Flower. 2. The same with the Carina reflexed. 3. Calyx. 4. Legume:—*nat. size.* 1—3 *magnified.*

W. Fitch del.

Pub. by S. Curtis, Glaziers Wood, Essex. Feb 1 1837.

Swan

LIMNANTHES DOUGLASII. MR. DOUGLAS' LIMNANTHES.

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Class and Order.

DECANDRIA MONOGYNIA.

(Nat. Ord.—LIMNANTHEÆ. *Br.*)

Generic Character.

Calyx 5-partitus. *Petala* 5. *Stamina* 10. *Nucula* 5.—Herba *annua, carnosa, glaberrima (Californiæ); floribus conspicuis.*

Specific Name and Synonyms.

LIMNANTHES * *Douglasii.*
LIMNANTHES Douglasii. *Br. in Lond. et Ed. Phil. Mag. July,* 1833. *Benth. in Hort. Trans. v.* 1. *N. S. p.* 409. *Lindl. Bot. Reg. t.* 1673.

A very pretty hardy annual, with fragrant flowers, discovered by the Naturalist whose name it bears in California, whence he sent both specimens and seeds to the Horticultural Society. It is not only a new Genus, but what gives additional interest is, that Mr. BROWN has made it the type of a new Order, which, including FLOERKEA, another annual, glabrous, and succulent North American plant, he has called LIMNANTHEÆ, and placed near GERANIACEÆ. The subject of our present plate flowers in June and July.

DESCR. *Plant* glabrous; the *stems* much branched, especially near the base, decumbent, eight to ten inches long, rounded. *Leaves* alternate, on long *petioles,* pinnated with one to three pairs of oblong or lanceolate *leaflets,* with an odd

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* λυμη, a *lake,* and ανθος, a *flower.* The plant is believed to inhabit the sides of watery places.

odd one: these are acute, entire, or incised, sometimes pinnatifid. *Peduncles* axillary, about as long as the leaves, solitary, single-flowered. *Calyx* deeply cut into five lanceolate spreading entire segments. *Petals* five, inserted immediately beneath the *filament*, oblongo-cuneate, spreading, emarginate at the apex, yellow, white towards the extremity, veined, at the base on each side having a line of hairs. *Stamens* ten, shorter than the petals, pale yellow. *Filaments* equal in height, every alternate one (opposite to the petal) with a concave gland at the back near the base. *Anther* oval, fixed by the back, turned outward. *Germen* of five deep, ovato-globose lobes. *Style* single, shorter than the stamens. *Stigmas* of five rays, each tipped with a little globose head.

Fig. 1. Petal. 2. Stamens and Pistil. 3. One of the Stamens bearing a Gland. 4. Pistil:—*magnified.*

W. Fitch del.

Pub.by S. Curtis, Harrwood Esqr. Feb.1 1837.

TULBAGHIA VIOLACEA. VIOLET-FLOWERED TULBAGHIA.

Class and Order.

HEXANDRIA MONOGYNIA.

(Nat. Ord.—LILIACEÆ. *Lindl.*)

Generic Character.

Spatha bivalvis, multiflora. *Corolla* urceolato-infundibuliformis; *tubus* cylindricus, erectus; *limbi* laciniæ 6, profundæ, æquales, lanceolatæ, patentes. *Corona* (vel *Nectarium*) e foliolis 3 distinctis vel in tubum connatis, fissis, æqualibus, carnosis. *Stamina* 3 in fauce tubi, 3 intra tubum. *Antheræ* subsessiles, ovatæ. *Stylus* teres, tubo multo brevior. *Stigma* turbinatum, depressum. *Capsula* ovata, trigona, trisulca, trilocularis; valvulis 3 emarginatis. *Semina* numerosa, oblonga, obtusa, compressa, corrugata. *Lam.*

Specific Name and Character.

TULBAGHIA *violacea;* foliis lineari-ensiformibus numerosis, floribus patulis, tubo gracili limbum superante, perianthio interno triphyllo. *Harv.*
TULBAGHIA violacea. *Harv. MSS.*

This beautiful plant, a native of Southern Africa, flowered in the Ludwigsburg garden, at the Cape of Good Hope; but its exact locality was not known to Mr. HARVEY, to whom we are indebted for the drawing and description here given. The roots were immediately derived from the Government Gardens, the plant having been sent some years previously to Lady FRANCES COLE.

DESCR. *Root?* *Leaves* several, sheathing at the base, six to eight inches long, one fourth of an inch wide, linear-ensiform, plane, or obsoletely grooved, obtuse, quadrifarious, glabrous, coriaceous and rigid, bright green. *Scape* erect,

erect, a foot and more high, slender, glabrous, filiform, bearing a simple *umbel* whose *flowers* open in succession. *Spatha* of two ovate, acute, membranaceous, patent, wrinkled, purplish pieces. *Flowers* eight to nine, erect or patent, bright, purple, shining. *Peduncles* slender, about equal with the tube of the perianth. *Perianth* double: *outer* of one piece, salver-shaped; *tube* three-fourths of an inch long, slender, triquetrous; *limb* six-partite; *sepals* in a double series, linear-obtuse equal in length with the tube, the margins incurved: *interior* of three leaves inserted at the mouth of the tube, short, oblong, one-fourth the length of the limb, obtuse, or emarginate, or bifid, placed opposite the three interior segments. *Stamens* six, sessile, in a double row: the three upper ones opposite the three leaves of the inner perianth just described; the three lower alternating with them. *Ovary* ovate, very short, with six furrows, three-celled: *ovules* numerous. *Style* cylindrical, short, somewhat angled, one-third the length of the tube: *Stigma* obtuse. Scent powerful, alliaceous.

Fig. 1. Flower laid open. 2. Pistil. 3. Section of the Ovary:—*magnified.*

Glazenwood del. et sc. March 1837.

PETUNIA VIOLACEA ; *hybrida.* PURPLE PETUNIA ; *hybrid var.*

Class and Order.

PENTANDRIA MONOGYNIA.

(Nat. Ord.—SOLANEÆ.)

Generic Character.

Calyx breve tubulosus, laciniis foliosis. *Corolla* tubo cylindraceo v. ventricoso, limbo plicato inæquali plano 5-lobo. *Stamina* 5, inæqualia, inclusa, medio tubo corollæ inserta. *Ovarium* disco insertum, dente unico utrinque ad suturam instructo. *Stigma* capitatum. *Capsula* valvis 2 integris, seminibus sphæricis reticulatis. *Lindl.*

Specific Character and Synonyms.

PETUNIA * *violacea ;* caule debili viscido-piloso, foliis brevi-petiolatis acutis, corollæ ventricosæ laciniis rotundatis acutis.
PETUNIA violacea. *Lindl. Bot. Reg. t.* 1626.
SALPIGLOSSIS integrifolia. *Hook. Bot. Mag. t.* 3113.
NIEREMBERGIA phænicea. *Sw. Brit. Fl. Gard. N. S. t.* 193.
Hybrida. (Tab. nostr. 3556.)

The charming groupe here figured represents seedling varieties of a hybrid between PETUNIA *violacea* and P. *nyctaginiflora,* and it must be confessed that here, as in many other vegetable productions, the art and skill of the Horticulturist has improved nature. Cultivation, alone, has, indeed, very much increased the size of the flowers and foliage of this plant: so that it can scarcely be recognized as

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* From *Petun,* the Brazilian name of the Genus, according to JUSSIEU.

as belonging to the same species as the native specimens sent by Mr. Tweedie; while in plants that are raised from seeds which are the offspring of P. *nyctaginiflora* and P. *violacea* (as represented in the annexed plate), the tube becomes longer, and narrower than in the latter, and the whole plant, save in colour, almost precisely similar to the former. There are various shades of purple on the corollas, but in every one the tint, though often exceedingly brilliant on the first expansion, soon fades to a paler and less bright hue. Some are pale pink, streaked within with deep purple lines, very much after the manner of Salpiglossis *picta*:—others are nearly of a pure white; but all have the tube dark-coloured. These varieties are equally hardy with the parents.

With regard to the Genus of this plant, I never can consent to its being referred to Nierembergia; but I do entirely agree with Professor Lindley in uniting it with Petunia, and gladly adopt the amended character which that able Botanist has given of this Genus, and the views he has taken of its structure and affinities.

These varieties of Petunia and the Phlox *Drummondii* were decidedly among the greatest ornaments of the greenhouse in the Glasgow Botanic Garden during the month of May (1836), a season too early for them to come to perfection in the open border.

Pub by S. Curtis Glasgow Essex March 1 1837.

EPIDENDRUM CHLOROLEUCUM. GREEN AND WHITE-FLOWERED EPIDENDRUM.

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Class and Order.

GYNANDRIA MONANDRIA.

(Nat. Ord.—ORCHIDEÆ.)

Generic Character.

Sepala patentia, subæqualia. *Petala* sepalis æqualia v. angustiora rarius latiora, patentia v. reflexa. *Labellum* cum marginibus columnæ omnino vel parte connatum, limbo integro vel diviso, disco sæpius calloso, costato v. tuberculato; nunc in calcar productum ovario accretum et cuniculum formans. *Columna* elongata; clinandrio marginato sæpe fimbriato. *Anthera* carnosa 2—4 locularis. *Pollinia* 4, caudiculis totidem replicatis annexa.—Herbæ *(Americanæ) epiphytæ, caule nunc apice v. basi pseudo-bulboso, nunc elongato apice folioso.* Folia *carnosa, rarissime venis elevatis striata.* Flores *spicati, racemosi, corymbosi vel paniculati, terminales vel laterales. Lindl.*

Specific Name and Character.

EPIDENDRUM *chloroleucum;* pseudo-bulbis oblongo-ovatis diphyllis, foliis ensiformibus racemum simplicem æquantibus, sepalis petalisque patentibus spathulatis, labelli omnino liberi trilobi lobis lateralibus oblongis erectis columnam in parte tegentibus intermedio cordato acuto, disco lineis tribus elevatis.

Imported from Demerara by JOHN ALLCARD, Esq., who kindly communicated the flowering specimen here represented in September, 1836. That zealous cultivator justly remarks its near affinity with my ENCYCLIA *patens* (Bot. Mag. t. 3013), which Professor LINDLEY, I do not doubt properly, refers

refers to Epidendrum, and which he describes under the name of Epidendrum *odoratissimum* (Bot. Reg. t. 1415). The figure just quoted, indeed, more resembles our plant than it does my Encyclia *patens;* but the lip is different, and the flowers are by no means fragrant.

Descr. *Bulbs* oblong-ovate, somewhat wrinkled, and sheathed with large scales. *Leaves* two, terminal, eight to ten inches long, oblong-ensiform, coriaceous, faintly striated, the margin a little reflexed. *Scape* arising from the apex of the bulb between the leaves, bearing a single *raceme* of eight to ten scentless *flowers*. *Sepals* and *petals* spreading, equal, spathulate, green. *Lip* entirely free from, but closely allied to, the *column*, white, three-lobed, the lateral lobes curved upwards, and in part surrounding the *column*, intermediate one cordate, acute, with three slightly elevated lines on the disk. *Column* pale green, semicylindrical, grooved above, on each side having a projecting white ring. *Anther* hemisphærical.

Fig. 1. Column and Lip. 2. Lip. 3. Column.

Pub.by S. Curtis, Glazenwood Essex Mar.1 1837.

ECHINOCACTUS MAMMILLARIOIDES. MAMMILLARIA-LIKE ECHINOCACTUS.

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Class and Order.

ICOSANDRIA MONOGYNIA.

(Nat. Ord.—CACTEÆ.)

Generic Character.

Sepala numerosa imbricata, basi ovarii adnata, in tubum brevissimum concreta, exteriora involuciformia, intima petaliformia. *Stamina* numerosa. *Stylus* filiformis apice multifidus. *Bacca* sepalorum reliquiis subsquamata. *Cotyledones* nullæ?—Frutices *simplicissimi carnosi ovati aut globosi melocactoidei costati aphylli, costis tuberculis confluentibus quasi formatis, dorso aculeorum fasciculos gerentibus.* Cephalium *seu spadix nullus.* Flores *e fasciculis aculeorum ad apices costarum orti, similes floribus* Cerei *sed tubo vix ullo donati. D C.*

Specific Name and Character.

ECHINOCACTUS *mammillarioides;* subrotundo-cylindraceus mammillosus, mammillis magnis conico-hemisphæricis subangulatis in costas 14—16 subspirales irregulares dispositis, apicibus lanosis spinis sub-7 breviusculis gracilibus patentibus pallidis terminatis, floribus flavo-rubris.

Introduced by Mr. HITCHIN from Chili, and now in the rich collection of CACTEÆ of Messrs. MACKIE of the Lakenham Nursery, near Norwich, who kindly communicated the drawing of the flowering specimen in the autumn of last year (1836). They justly observe, that the species appears in the structure of the stem to be intermediate between MAMMILLARIA and ECHINOCACTUS. It is covered with mammillæ of

a large size indeed, but these are arranged in costæ, which are irregular, and slightly spiral; but the flowers appear to be quite those of the latter genus.

Not having seen the living specimen, I do not attempt a description; nor does the excellent figure seem to require it. It flowers very freely, and the blossoms continue in perfection for several days. In one instance, there were about sixteen flowers expanded upon the same plant at one time.

3550

Begonia octopetala. Eight-petaled Begonia.

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Class and Order.

Monœcia Polyandria.

(Nat. Ord.—Begoniaceæ.)

Generic Character.

Masc. *Calyx* o. *Corolla* polypetala, petalis plerumque 4, inæqualibus.—Fæm. *Calyx* o. *Corolla* petalis 4—9, plerumque inæqualibus. *Styli* 3, bifidi. *Capsula* triquetra, alata, trilocularis, polysperma.

Specific Character and Synonyms.

Begonia *octopetala;* acaulis, foliis longe petiolatis cordatis lobatis serratis, pedunculo longissimo, floribus masculis subocto fæmineis subsexpetalis, capsulæ ala oblonga elongata porrecta.

Begonia octopetala. *L'Hérit. Stirp. p.* 101. *Spreng. Syst. Veget. v. 2. p. 627.*

Tubers of this truly fine species of Begonia were sent in 1835 from Lima, by John M'Lean, Esq., to the Glasgow Botanic Garden, where the large flowers, like those of an *Anemone,* were produced in the stove during the months of October and November in the following year. Dried specimens were also communicated by Mr. Mathews from the same country: but they do not appear in any of the sets which were distributed by that zealous Botanist. It was originally discovered by Dombey, and from his dried specimens it would appear L'Héritier's description was made. Living plants also were at that time in the Jardin des Plantes, but they did not produce flowers. We have found that those individuals bloomed best, which were in the warmest situation in the stove.

Descr. *Root* tuberous. *Stem* none. *Leaves* upon long, succulent, downy *petioles*, a foot and a half or more in length, cordate, from six inches to a span long, deeply lobed and serrated at the margin, slightly downy, most so upon the prominent veins beneath, of a bright green colour. *Scape* about as long as the petioles, rounded, downy, bearing the large, greenish-white *flowers* in corymbs; in the dried specimens each peduncle has two or three such corymbs, and in each corymb of from four to six *flowers*, the upper flowers are male, the lower female: *pedicels* with caducous bracteas. *Male flowers* two inches in diameter, of eight or nine obovate, spreading, unequal *petals*, of which the outer ones are greener than the inner. *Stamens* exceedingly numerous, of which several in the centre are abortive, club-headed ones. —*Female flowers* smaller than the male. *Petals* fewer, generally six. *Germen* downy, turbinate, triquetrous, three-lobed, two of the angles with small, indistinct wings, the third with a very large, oblong, porrected one, slightly toothed and reddish at the extremity. *Styles* several, branched. *Stigmas* lobed, penicillate.

Fig. 1. Pistil, slightly *magnified*. 2. Stamen. 3. Abortive ditto: *magnified*.

W. Fitch del.

Pub. by S. Curtis, Glazenwood Lisson Mar.t 1827.

MIMULUS CARDINALIS. CARDINAL MONKEY-FLOWER.

Class and Order.

DIDYNAMIA ANGIOSPERMIA.

(Nat. Ord.—SCROPHULARINÆ.)

Generic Character.

Calyx tubulosus, angulatus, 5-dentatus. *Corolla* personata; labio superiore bilobo lateribus reflexo; inferiore trifido, laciniis subæqualibus. *Stamina* 4, didynama. *Antherarum lobis* divaricatis. *Stigma* bilamellatum. *Capsula* calyce inclusa, bilocularis, loculicido-bivalvis; valvis integris. *Kunth.*

Specific Character and Synonyms.

MIMULUS *cardinalis;* villosus subviscidus, foliis obovato-lanceolatis dentatis subquinquenerviis basi connatis, pedunculis elongatis, dentibus calycinis subæqualibus acutis, corollæ laciniis emarginatis reflexis.

MIMULUS cardinalis. *Dougl. MSS. Lindl. in Hort. Trans. N. S. v. 2. p. 70. t. 3. Sweet, Br. Fl. Gard. t.* 358.

Of the several species of MIMULUS discovered by Mr. DOUGLAS on the fertile shores of N. W. America, this was among the last, as it certainly is the most beautiful, of the whole, though its beauty is somewhat diminished by the reflexed position of the scarlet lobes of the corolla. It is a native of California, and may be considered a hardy annual, with us, readily increasing both by seeds and cuttings.

DESCR. *Stem* a foot to a foot and a half high, erect, hairy and slightly viscid, bearing numerous opposite *branches* and opposite leaves, which latter are two to four inches long, obovato-lanceolate, connate toothed, except near the base, somewhat distinctly three or five-nerved, with a few oblique veins.

veins. *Peduncles* axillary, generally longer than the flowers, hairy. *Calyx* tubular, downy, marked with five prominent ribs, the *limb* oblique, of five, nearly equal teeth. *Tube* of the corolla a little longer than the calyx ; *limb* oblique, of four deep lobes, the upper one bifid, the segments reflexed, emarginate. *Stamens* and *style* protruded. The plant has a faint smell of musk, when passed through the hand.

ECHINOCACTUS MACKIEANUS. MR. MACKIE'S ECHINOCACTUS.

Class and Order.

ICOSANDRIA MONOGYNIA.

(Nat. Ord.—CACTEÆ.)

Generic Character.

Sepala numerosa imbricata, basi ovarii adnata, in tubum brevissimum concreta, exteriora involucriformia, intima petaliformia. *Stamina* numerosa. *Stylus* filiformis, apice multifidus. *Bacca* sepalorum reliquiis subsquamata. *Cotyledones* nullæ ?—Frutices *simplicissimi carnosi ovati aut globosi melocactoidei costati aphylli, costis tuberculis confluentibus quasi formatis, dorso aculeorum fasciculos gerentibus.* Cephalium *seu spadix nullus.* Flores *e fasciculis aculeorum ad apices costarum orti, similes floribus* Cerei *sed tubo vix ullo donati. D. C.*

Specific Character.

ECHINOCACTUS *Mackieanus;* obovatus mammillosus, mammillis magnis conico-depressis in costas 16—17 subregulares dispositis apicibus lanosis spinis 8—10 longis gracilibus patentibus fuscis terminatis, floribus albis apicibus rubro-tinctis.

This species is also from the rich collection of Messrs. MACKIE of the Lakenham Nursery, and like that given at t. 3558 has a considerable affinity with the Genus MAMMILLARIA : but it is a much more neatly made and elegant species. The drawing came marked as " E. *melocactiformis:*" but it cannot be the species so called of DE CANDOLLE, figured at tab. 10 of the " *Revue de la Famille des Cactées*" which is a totally different plant. Ours, we believe, was formerly in Mr. HITCHIN's collection, where it was derived from Kew.

It

It is probably a native of Chili, like the ECHINOCACTUS *mammillarioides*.

The Messrs. MACKIE observe in their letter, that this is a fine species, but of very slow growth, and more difficult to keep in health than the genuine ECHINOCACTI ; it requires however the same treatment.

RYTIDOPHYLLUM AURICULATUM. AURICULATED RYTIDOPHYLLUM.

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their somewhat arborescent or shrubby stems, fibrous roots, pedunculated cymes, scattered leaves, with the parenchyme singularly wrinkled on the upper surface, each little prominence surmounted with a hair or papilla, to which characters that author adds the presence of stipules. To this groupe our present plant certainly belongs, although I can find no trace of stipules. From all the previously described species, it is known by its entirely sessile and auriculated leaves. Seeds of it were brought to Mr. Murray by the mate of a vessel from Rio Janeiro: but as no species of the Genus has been described as an inhabitant of Brazil, it is probable that it came originally from some of the West India Islands. The figure of Gesneria *grandis* given in the *Nouv. Dict. des Sciences* at first sight much resembles this; but it will be seen that the leaves are petiolated, and that there are two heart-shaped stipules at the base; the flowers too, are of a very different colour. Our plant flowered in Nov. 1836.

Descr. *Stem*, in our plants, three and five feet high, but little branched, densely woolly. *Leaves* a foot and more long in the older plants, broadly lanceolate, somewhat obliquely falcate, crenato-serrated, sessile, auriculated at the base, very wrinkled and bullate above and downy, deep green, beneath paler and more downy, beautifully reticulated with nerves, having very depressed areolæ. *Peduncles* as long as the leaves, erect, downy, bearing a di- trichotomous cyme. *Calyx* hairy, five-fid, the tube adhering to the germen: the segments acuminate, spreading. *Corolla* yellow-green and silky externally, within yellow, spotted with red, tubular: the *tube* short, curved: the *limb* spreading, with five rather acute *lobes*. *Stamens* curved, with the *anthers* connate. *Germen* wholly inferior; the apex surrounded by a five-lobed, fleshy disk. *Style* as long as the stamens: *Stigma* clavate, oblique.

Pub by S. Curtis

Acropera Loddigesii. Mr. Loddiges' Acropera.

Class and Order.

Gynandria Monandria.

(Nat. Ord.—Orchideæ.)

Generic Character.

Sepala patentia, supremum galeatum, lateralia divaricata. *Petala* nana, obliqua, apice truncata, subpatentia. *Labellum* unguiculatum, cum basi columnæ elastice articulatum, trilobum, lobo intermedio minore saccato. *Columna* erecta, marginata, basi saccata. *Pollinia 2,* linearia, convoluta, caudicula lineari-subulata, glandula minuta. *Rostellum* subulatum.—Epiphyta, *racemis cernuis multifloris, vegetatione* Maxillariæ Colacis. *Lindl.*

Specific Name and Synonyms.

Acropera * *Loddigesii.*
Acropera Loddigesii. *Lindl. Gen. et Sp. Orchid. p.* 172.
Maxillaria galeata. *Lindl. in Lodd. Bot. Cab. t.* 1645.

A very singular Epiphytous Orchideous plant, introduced into the stoves of this country from Xalapa of Mexico by Mr. George Loddiges, whence Dr. Lindley has been led to distinguish it by his name: a compliment which that liberal and able Horticulturist well merits. The habit of the plant is quite peculiar: the racemes are quite pendent, and in the state of bud and after the first expansion, the long and regularly decurved ovaries are arranged in three rows.

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* The name is probably derived from ακρος, the *extremity*, and περα *beyond*, from the little saccate appendage at the apex of the labellum.

rows. Our plants, in the Glasgow Botanic Garden, for which we are indebted to Mr. Loddiges, blossomed in September ; but the flowers are of very short duration.

Descr. *Bulbs* ovate, clustered, clothed with two or three large, sheathing, membranaceous scales, bearing at the summit, two, rarely one, broadly-lanceolate, nerved *leaf*. *Raceme* six to eight inches long, arising from the base of the bulbs, and pendent. *Germen* long, cylindrical, decurved, at first arranged in three rows, tapering a little below into a footstalk. *Sepals* three, oblongo-ovate, the two side ones spreading, their margins reflexed ; the upper one helmet-shaped and carinated, all of them pale brownish-yellow, inclining to green. *Petals* small, oblongo-falcate, truncate at the apex, the angles tooth-like. *Lip* articulated on the base of the column, oblong, yellow-brown, the two large side lobes inflexed, the extreme one saccate. *Column* greenish-yellow, spotted, somewhat winged at the margin : above the *stigma* is a long beak *(rostellum)*, which receives the gland of the pollen-mass. *Anther-case* hemisphærical. *Pollen-masses* double, oblong, compressed, cleft at the margin above on one side : *gland* very long, subulate.

Fig. 1. Flower. 2. Ditto, from which the Sepals have been removed. 3. Pollen-mass. 4. Lip.—*Magnified.*

W.Fitch del.

Pub. by S. Curtis, Glazenwood Essex Apr 1.1837

BEGONIA MONOPTERA. SINGLE-WINGED BEGONIA.

Class and Order.

MONŒCIA POLYANDRIA.

(Nat. Ord.—BEGONIACEÆ.)

Generic Character.

MASC. *Calyx* o. *Corolla* polypetala, petalis plerumque 4, inæqualibus. FÆM. *Calyx* o. *Corolla* petalis 4—9, plerumque inæqualibus. *Styli* 3, bifidi. *Capsula* triquetra, alata, trilocularis, polysperma.

Specific Name and Character.

BEGONIA *monoptera ;* pubescens, foliis longe petiolatis angulatis crenatis subtus insigniter papillosis sanguineis radicalibus reniformibus vix obliquis, caulinis oblique cuneatis, racemo composito, germinis ala solitaria elongata corniformi.

This is one of the many species of this handsome Genus, for which our stoves are indebted to Mr. OTTO of the Royal Berlin Garden. It was introduced from Brazil to that collection in 1826, by Mr. DEPPE. It flowers in July.

DESCR. *Stem* erect, one to two feet high, rounded, geniculated and swollen at the joints, of a dull red colour, minutely papillose and downy. *Radical leaves* on long, red stalks, large, somewhat reniform, truncate at the base, scarcely at all oblique, those of the stem remote, much smaller, on short *petioles,* roundish, obliquely cuneate, all of them angled and crenate, of a dark rather lurid green above, when seen under a microscope obscurely papillose, each papilla terminated by a short soft hair, beneath remarkably papillose, except upon the nerves (which are radiating) ;

radiating); the papillæ flattened and somewhat wrinkled at the top, amongst them are a few scattered hairs. *Stipules* ovate-oblong, entire, green. *Raceme* terminal, elongated; *pedicels* one to two inches long, solitary or two or three from the same point, simple or branched. *Bracteas* two or three, bearing little gemmæ as well as the pedicels from their axils. Where the pedicels are solitary, the flower is female; where there are two or three, one is male, the remainder, (one or two,) female. All have mostly flowers with four white, petaloid, spreading *sepals*, two opposite ones large and oval, the other two much smaller and oblong, or sometimes five, and sometimes six, unequal sepals. *Filaments* of the *stamens* club-shaped, yellow, with a cell under the apex at each side. *Germen* turbinate, downy, with three angles; one of which is expanded into a horizontal, horn-like wing. *Stigmas* yellow, hairy.

W. Fitch Del.

Pub. by S. Curtis, Glazenwood, Essex. Apr 1. 1837.

EPIDENDRUM DIFFUSUM. SPREADING EPIDENDRUM.

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Class and Order.

GYNANDRIA MONANDRIA.

(Nat. Ord.—ORCHIDEÆ.)

Generic Character.

Sepala patentia, subæqualia. *Petala* sepalis æqualia v. angustiora, rarius latiora, patentia v. reflexa. *Labellum* cum marginibus columnæ omnino v. parte connatum, limbo integro v. diviso, disco sæpius calloso, costato v. tuberculato ; nunc in calcar productum ovario accretum et auriculum formans. *Columna* elongata ; clinandrio marginato, sæpe fimbriato. *Anthera* carnosa, 2—4-locularis. *Pollinia* 4, caudiculis totidem replicatis annexa.—Herbæ *(Americanæ) epiphytæ, caule nunc apice vel basi pseudobulboso, nunc elongato apice folioso.* Folia *carnosa, rarissime venis elevatis striata.* Flores *spicati racemosi, corymbosi v. paniculati, terminales v. laterales. Lindl.*

Specific Character and Synonyms.

EPIDENDRUM *diffusum ;* foliis oblongis, caule ancipiti, paniculа terminali ramosissima, sepalis lineari-lanceolatis petalisque setaceis erecto-patentibus striatis, labello cordato acuminato basi bicalloso. *Lindl.*

EPIDENDRUM diffusum. *Swartz, Fl. Ind. Occ. v. 3. t.* 1503. *Loddiges, Bot. Cab. t.* 846. *Spreng. Syst. Veget. v. 3. p.* 737. *Lindl. Gen. et. Sp. Orchid. p.* 102.

Not an uncommon inhabitant of the trunks of trees in the hilly parts of Jamaica, whence we have often received specimens for the Herbarium ; and Professor LINDLEY, upon the authority of PAVON, gives it as a native also of Mexico.

SWARTZ

Swartz states the flowers to be red (sanguinei), but he probably made his descriptions from the dried state of the plant, when they certainly have a reddish tinge: but in the several recent specimens we have seen, the blossoms have been invariably of the colour here represented. Our figure was taken in November 1837, from plants, sent to J. Allcard, Esq. from St. Michael's Mount, Jamaica: and it was flowering also at the same time in the stoves of the Glasgow Botanic Garden, the specimens having been transmitted to Mr. Murray, by Mr. Niven, Overseer of White River Estates, who sent it with Broughtonia *sanguinea* and other rarities from the same island.

Descr. *Stem* five to six inches long, flexuose and more or less reclined, compressed, leafy. *Leaves* eight to ten, distichous, broadly oblong, spreading, coriaceous, dark green, obtuse, sheathing at the base. *Panicle* terminal, six or eight inches to a foot long, branched from the base, branches and branchlets spreading, slender. *Flowers* small, of a uniform pale yellow-green colour. *Sepals* narrow, lanceolate, and, as well as the almost subulate or setaceous *petals*, spreading. *Lip* cordate, acuminate, waved, with two callous, raised hairs at the base, the claw completely united with the column. This latter is triangular. *Anther-case* hemisphærical, having two small cells, in which lie the pale-coloured *pollen-masses*, which are connected by a small gland.

Fig. 1. Flower. 2. Underside of Anther-case. 3. Pollen-masses:—*magnified.*

Cereus serpentinus. Serpent-like Cereus.

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Class and Order.

Icosandria Monogynia.

(Nat. Ord.—Cacteæ.)

Generic Character.

Sepala numerosissima imbricata basi ovario adnata, in tubum elongatum concretum, exteriora breviora calycinalia, media longiora colorata, intima petaliformia. *Stamina* numerosissima cum tubo concreta. *Stylus* filiformis apice multifidus. *Bacca* sepalorum reliquiis areolata tuberculosa aut squamata. *Cotyledones* nullæ ?—Frutices *carnosi elongati axi ligneo interne medullifero donati, angulis verticalibus spinarum fasciculos gerentibus regulariter sulcati.* Anguli *seu alæ nunc plurimæ, nunc paucissimæ, rarius duæ tantum et tunc rami compresso-alati.* Flores *ampli e spinarum fasciculis aut crenis angulorum orti.* *D C.*

Specific Character and Synonyms.

Cereus *serpentinus ;* subrepens flexuosus subscandens obtusissime 11—12-gonus, setis fasciculatis lanugine parca demum obsoleta multo longioribus, tubo florali basi valde setifero.

Cereus serpentinus. " *Lag. Annal. Cienc. Nat.* 1801. *p.* 261." *De Cand. Diss. Cact. t.* 12.

Cactus serpentinus. *Willd. Enum. Suppl.* 31. *Link et Otto, Ic. Pict. t.* 91.

For the opportunity of figuring this fine Cereus, I am indebted to Mr. Mackay of the Norwich Nursery, in whose extensive collection of succulent plants (formerly Mr. Hitchin's) it produced flowers, from which the accompanying drawing was made. Mr. Mackay observes, that it is a night-blooming species, that the blossom remains expanded about

about the same time as the C. *grandiflorus* (Tab. 3381) is strongly scented, and that the plant is more hardy than that species, but less so than the ECHINOCACTI.

DESCR. *Stem* long, creeping unless supported, branched, jointed; the joints long, cylindrical, an inch or an inch and a half in diameter, and marked with from eleven to twelve angles, on which are numerous fascicled, spinous setæ, intermixed with short tufts of a woolly substance. The flower is large, handsome, fragrant, terminating a joint of which it seems to be a continuation, there being no well-defined mark between the termination of the one and the commencement of the other. *Tube* three to four inches long, clothed with several linear, green, strongly ciliated scales. *Petals* numerous, linear, acute, spreading, of a pale whitish flesh colour within, reddish or brick colour without. *Stamens* much protruded, very numerous, forming a deep cup: *filaments* white: *anthers* yellow. *Stigma* of four to five rays, white.

3507

W. Fitch. del.

Pub. by S. Curtis, Glasswood Town, Apr 1 1837

CEROPEGIA STAPELIIFORMIS. STAPELIA-LIKE CEROPEGIA.

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Class and Order.

PENTANDRIA DIGYNIA.

(Nat. Ord.—ASCLEPIADEÆ.)

Generic Character.

Corona staminea exterior abbreviata, 5-loba ; interior 5-phylla, foliolis ligularibus indivisis. *Massæ pollinis* basi affixæ, marginibus simplicibus. *Stigma* muticum. *Folliculi* cylindracei, læves. *Semina* comosa. *Br.*

Specific Name and Character.

CEROPEGIA *stapeliiformis;* volubilis? aphylla ramosa, ramis teretibus dentibus mollibus spiniformibus subverticillatis, floribus 1—2 e ramis propriis brevibus, corollæ limbo intus hirsuto-tomentoso laciniis liberis recurvis carinatis, lobis coronæ stamineæ exterioris brevibus emarginatis, interioris elongatis filiformibus.
CEROPEGIA stapeliiformis. *Hort. Kew.*

This remarkable plant is probably a native of the East Indies, and was received at the Glasgow Botanic Garden from the Royal Gardens of Kew, with the appropriate name here adopted. It flowers in the stove in April.

DESCR. *Stem,* in our plant, about the thickness of one's finger, full of a milky juice, rounded, glabrous, of a dark lurid green colour, glabrous, marked with soft, spiniform processes, three in a whorl, each with two little points from within which the branches arise, these are long, slender, apparently climbing, of a dark purple colour, and have the soft, spine-like teeth above mentioned alternate and whorled. *Flowers* one to two, from short branches. *Peduncle*

two

two to three lines long, thickened upwards. *Calyx* five-partite, the segments subulate. *Corolla* two inches long; *tube* curved, swelling below, and constricted just above the base, greenish-white, spotted above and below with deep purple: the *tube* expanded upwards to form the *limb*, which is cut into five segments, dark purple without and glabrous, white and hairy within, they soon separate, and are curved backwards, the sides are closely reflexed, so that the upper side presents a sharp keel, giving a very singular appearance to the blossom. *Staminal crown* with the exterior lobes short, erect, or slightly patent, emarginate, inner elongated, erecto-connivent, filiform.

Fig. 1. Staminal Crown:—*magnified.*

Oncidium Cebolleta. Rounded-leaved Oncidium.

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Class and Order.

Gynandria Monandria.

(Nat. Ord.—Orchideæ.)

Generic Character.

Perianthium explanatum. *Sepala* sæpius undulata : lateralibus nunc sub labello connatis. *Petala* conformia. *Labellum* maximum, ecalcaratum, cum columna continuum, varie lobatum, basi tuberculatum v. cristatum. *Columna* libera, teres, apice utrinque alata. *Anthera* semibilocularis, rostello nunc abbreviato, nunc elongato rostrato. *Pollinia* 2, postice sulcata, caudicula plana, glandula oblonga.—Herbæ *epiphytæ, nunc pseudo-bulbosæ.* Folia *coriacea.* Scapi *paniculati vaginati, rarius simplices.* Flores *speciosi, lutei, sæpius maculati, raro albi. Lindl.*

Specific Character and Synonyms.

Oncidium *Cebolleta ;* bulbis minutis vaginatis unifoliatis, foliis teretibus subulatis, scapo stricto paniculato multifloro, sepalis petalisque obovato-lanceolatis undulatis, labello profunde trilobo, lobis lateralibus patentissimis obovatis, lobo medio reniformi basi unguiculato apice emarginato, crista triloba tuberculata, columnæ alis rotundatis brevibus.

Oncidium Cebolleta. *Swartz, Act. Holm.* 1800, *p.* 240. *Lindl. Gen. et Sp. Orchid. p.* 207.

Epidendrum Cebolleta. *Jacq. Amer. p.* 230. *t.* 131. *f.* 2. (without flower.)

Oncidium juncifolium. *Lindl. Coll. Bot. p.* 27.

Epidendrum juncifolium. *Linn. Sp. Pl. p.* 1351.

Cymbidium juncifolium. *Willd. Sp. Pl. v.* 4. *p.* 102.

Of this singular and handsome Orchideous plant, I am not aware that the flowers had been seen in this country, till

till a fine panicle appeared in the stove of the Glasgow Botanic Garden* in April, 1836, on a plant which that establishment derived from Mr. LOCKHART of Trinidad. The blossoms, of long duration, have considerable brightness of colour, and make a singular contrast with the harsh, thick, dark green, and almost spindle-shaped leaves.

DESCR. If the base of the *leaves*, which is more or less clothed with a ragged, sheathing membrane, be examined, it will be seen that each of them is jointed on to a small *bulb*, not much larger than a pea. The *leaves* are erect, terete, obscurely marked with lines, having a rather deep furrow in front, in the middle about as thick as one's finger, tapering a little below, acuminated to a sharp point at the apex: the whole of a harsh and rigid texture, and of a dark green colour. From the base a spotted *scape* arises, about two feet in height, much branched and panicled upwards, many-flowered. *Flowers* rather small. *Sepals* spreading, nearly equal, narrow-obovate, waved, greenish-yellow, spotted with dull red. *Lip* patent, large, deeply three-lobed, bright yellow: two lateral lobes broadly obovate, red at the lower margin near the base; middle lobe much the largest, kidney-shaped, with a notch at the apex: disk with a prominent crest with three distinct lobes or teeth, and some lesser ones, yellow, spotted with red. *Column* short: with a rounded wing on each side of the *stigma*. *Anther* hemispherical, yellow, blotched with red-brown.

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* Since the above was printed, we learn that it is blossoming at this time in the Collection of CHARLES HORSFALL, Esq., Liverpool.

Fig. 1. Column and Lip:—*magnified*.

ECHINOCACTUS SESSILIFLORUS. SESSILE-FLOWERED ECHINOCACTUS.

Class and Order.

ICOSANDRIA MONOGYNIA.

(Nat. Ord.—CACTEÆ.)

Generic Character.

Sepala numerosa imbricata, basi ovarii adnata, in tubum brevissimum concreta, exteriora involucriformia, intima petaliformia. *Stamina* numerosa. *Stylus* filiformis apice multifidus. *Bacca* sepalorum reliquiis subsquamata. *Cotyledones* nullæ?—Frutices *simplicissimi carnosi ovati aut globosi melocactoidei costati aphylli, costis tuberculis confluentibus quasi formatis, dorso aculeorum fasciculos gerentibus.* Cephalium *seu spadix nullus.* Flores *e fasciculis aculeorum ad apices costarum orti, similes floribus* Cerei *sed tubo vix ullo donati. D C.*

Specific Character and Synonym.

ECHINOCACTUS *sessiliflorus;* parvus depresso-globosus, costis 12 acutiusculis, spinarum fasciculis paucissimis, spinis breviusculis 4—6 subvalidis albis recurvo-patulis, floris tubo brevi, petalis flavis lineari-spathulatis.

ECHINOCACTUS sessiliflorus. *Hort. Mackie.*

From the Norwich Nursery, whence the charming drawing here engraved was kindly communicated by Messrs. MACKIE. The beautiful, short, white, and distinctly-placed fascicles of spines form a singular contrast with the dark green of the plant, and together with the short and much depressed stem, readily distinguish it from E. *Ottonis*, figured at tab. 3107 of this work. It flowers freely, producing several blossoms every year

Mr.

Mr. Frederic Mackie, whose skill and experience in Horticulture are very great, observes, that he is very successful in flowering the different species of Echinocactus, by growing them " very near the glass, and during the summer time, in a very high temperature, by keeping the upper glasses of the house close: strong light and heat being necessary for expanding their blossoms in perfection. Some of them will close immediately upon being removed to a cooler place. It is also very necessary to have the pots well drained, as the roots are liable to decay if the earth is at all sodden with moisture. I think that setting the free growing species in poor soil is quite a mistake, for we invariably find that they thrive better in good soil, *provided it be well drained,* and if they are planted in small pots."

3570

W Fitch del.

Pub by S Curtis Glazenwood Esser May 1837.

ECHEVERIA RACEMOSA. RACEMED ECHEVERIA.

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Class and Order.

DECANDRIA PENTAGYNIA.

(Nat. Ord.—CRASSULACEÆ.)

Generic Character.

Calyx 5-partitus, sepalis folia referentibus erectis ima basi subconcretis. *Petala* 5, inferne coalita erecta crassa rigidula ad nervum medium crassiora et fere basi trigona acuta. *Stamina* 10 petalis breviora basi cum petalis concreta. *Squamæ* 5 breves obtusæ. *Carpella* 5 in stylos subulatos abeuntia.—Frutices *carnosi Mexicani.* Folia *alterna caulina aut rosulata subopposita integerrima enervia.* Flores *secus rachin aut secus cymæ ramos sessiles, coccinei aut flavi. D C.*

Specific Character and Synonym.

ECHEVERIA * *racemosa ;* foliis rosulatis densis linguæformi-lanceolatis acutiusculis cartilagineo-marginatis, supra convexiusculis subtus convexo-carinatis, caule sparsim folioso simplici vel ramoso racemoso, laciniis calycinis æqualibus acutissimis patenti-reflexis.

ECHEVERIA racemosa. *Hort. Claremont.*

Four species of this handsome Genus are described by DE CANDOLLE, all natives of Mexico or California, and a fifth (Mexican one) is described by HAWORTH : from all these our plant differs in the inflorescence, and still more in the

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So named by M. DE CANDOLLE in honor of ECHEVERA, a Mexican botanical painter.

the foliage. The Glasgow Garden has received it from the Berlin Garden, but without a name, and from that of Claremont under the appellation here adopted. Of its history, I regret to say I know nothing: it is probably a native of Mexico. The flowers are produced copiously in the greenhouse, in the summer and autumn months.

Descr. Succulent, suffruticose. *Barren stems* short, thickly clothed with rosulate tufts of fleshy *leaves*, of a brownish-green colour and glaucous hue, two to four inches long, in form between lanceolate and linguiform, slightly concave above, convex and keeled beneath, the margin white and cartilaginous: *flowering stems* nearly a foot high, rounded, glaucous, sparingly leafy, with leaves of the same shape as those of the barren stems, but narrower and gradually becoming smaller. *Raceme* elongated, many-flowered. *Pedicels* curved. *Calyx* 5-partite, fleshy, glaucous, the segments ovato-lanceolate, very sharp-pointed. *Corolla* red, of five, erect, carinated *petals*, gibbous at the base, and there united so as to appear monopetalous. *Stamens* ten, five at the base of the petals, and alternate with them, five shorter ones inserted a little above the middle of the petals. *Hypogynous glands* five, small, white, fleshy, one at the base of each germen. *Pistils* five, standing close, erect: *Germen* ovate, tapering into a rather short, slender *style*: *Stigma* obtuse.

Fig. 1. Flower, with the Corolla laid open. 2. Single Pistil, with the Gland at the base:—*magnified*.

SARCANTHUS TERETIFOLIUS. ROUND-LEAVED SARCANTHUS.

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Class and Order.

GYNANDRIA MONANDRIA.

(Nat. Ord.—ORCHIDEÆ.)

Generic Character.

Perianthium explanatum. *Sepala* et *petala* subæqualia. *Labellum* breve calcaratum, trilobum, carnosum, cum columna articulatum; calcare intus ½ biloculari. *Columna* erecta, semiteres. *Anthera* bilocularis. *Pollinia* 2, postice lobata, caudicula glandulaque variis.—Herbæ *epiphytæ caulescentes*. Folia *disticha, plana v. teretia*. Racemi *oppositifolii*. Flores *speciosi*. *Lindl.*

Specific Character and Synonyms.

SARCANTHUS * *teretifolius;* foliis teretibus, spica simplici horizontali foliis æquali, sepalis petalisque oblongis obtusis reflexis, labelli calcare recto obtuso intus pubescente in lamina ovata acuta carnosa producto, facie columnæ villosa.

SARCANTHUS teretifolius. *Lindl. Gen. et Sp. Orchid. p.* 234.
VANDA teretifolia. *Lindl. Coll. Bot. t.* 6.

This singular looking plant, with the leaves of nearly the same form and texture as the stem, is a native of China, and we have excellent figures of it in some beautiful drawings of plants executed by the Chinese. It was introduced to our stoves by Mr. BROOKES of Newington Green, and first described by Dr. LINDLEY in his valuable Collectanea Botanica.

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* From σαρξ, σαρκος, *flesh*, ανθος, a *flower*, in consequence of the fleshy nature of the blossom.

Botanica. It is now not uncommon in collections of Orchideous Epiphytes, flowering in September.

Descr. *Stem* a foot or more high, erect, rounded, green (except in the oldest parts), flexuose, jointed, sending forth aerial, thick, fibrous roots from the various parts of their joints, and a *leaf* from the top of each, which is in itself articulated upon the stem, two to four inches long, cylindrical, flexuose, obtuse. *Spike* horizontal, and directed towards the opposite side of the stem to that from which it has its origin, bearing seven or eight *flowers*. *Sepals* and *petals* spreading, oval, dull green with reddish lines, the latter the smallest. *Lip* ovate, slipper-shaped, pendent, longer than the calyx, articulated upon the column, white, having at the base two incurved lobes edged with red. *Column* short, downy at the base: *Stigma* projecting: *Anther-case* hemisphærical.

Fig. 1. Flower. 2. Column:—*Magnified.*

ERRATUM.

Tab. 3565, second page, for Mr. Niven, read Mr. Cowan.

Tab. 3568. *Oncidium Cebolleta.* We have pleasure in stating that John Henchman, Esq., of the Clapton Nursery, introduced this fine plant to our collections in 1834. He found it in the vicinity of Cumana and carried it to Trinidad, whence, as above stated, Mr. Murray received our specimen, which blossomed in the Glasgow Garden. Another plant of it was sent to Mr. Murray from the Clapton Nursery, by Mr. Lowe, which is now showing flower, and Mr. Horsfall's was received from the same establishment. Mr. Henchman possesses eight varieties, one of them with much larger and handsomer flowers, than that given at t. 3568, and which are at this time (April 1837,) in high perfection.

Eutoca viscosa. Clammy Eutoca.

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Class and Order.

Pentandria Monogynia.

(Nat. Ord.—Hydrophyllaceæ.)

Generic Character.

Corolla decidua. *Ovarium* ovoideo-globosum, piloso-hispidum. *Placentæ* lineares, dorso parietibus ovarii adnatæ, 4-multi-ovulatæ. *Capsula* dissepimentis incompletis semi-bilocularis.—Herbæ *annuæ? sepius erectæ, habitu* Phaceliæ, *rarius diffusæ vel divaricatæ.* Flores *racemosi densi sessiles, vel laxi pedunculati, cymis unilateralibus simplicibus vel dichotomis. Benth.*

Specific Character and Synonyms.

Eutoca *viscosa ;* glanduloso-pilosa viscosa, caule erecto ramoso, foliis cordato-ovatis subangulatis serratis, racemis elongatis furcatis simplicibusque, placentis multiovulatis.

Eutoca viscosa. *Bentham MSS. Lindl. Bot. Reg. t.* 1808.

A most lovely, hardy annual, flowering during the summer, and continuing, in Scotland, in great beauty through the month of September. The blossoms are of the most brilliant blue, and there is a constant succession of them during the fine weather. Native of California, where it was discovered, and whence it was introduced, by Mr. Douglas.

Descr. *Whole plant,* but more especially the stem and calyx, clothed with glandular, viscid pubescence. *Stem* rounded, green, erect, branched, a foot or more high. *Leaves* alternate, petioled, cordato-ovate, somewhat lobed and irregularly serrated : *petiole* scarcely an inch long. *Racemes* terminal, forked, at first circinnate. *Flowers* large, brilliant

brilliant deep blue, pale and dotted in the centre. *Calyx* deeply cut into five linear segments. *Corolla* rotate, five-lobed, lobes spreading, rounded. *Stamens* five, arising from the base of the short tube: *filaments* purple, very hairy in their lower half. *Anthers* oval, yellowish. *Germen* ovate, hairy. *Style* bipartite, purple, glabrous.

Fig. 1. Corolla laid open. 2. Pistil :—*magnified.*

1
2
3
4

Maxillaria Steelii. Mr. Steele's Maxillaria.

Class and Order.

Gynandria Monandria.

(Nat. Ord.—Orchideæ.)

Generic Character.

Perianthium connivens, raro patens. *Sepala* lateralia cum basi producta columnæ connata. *Petala* subconformia. *Labellum* trilobum, cucullatum, sessile, cum basi producta columnæ articulatum. *Columna* semiteres, aptera. *Anthera* subbilocularis. *Pollinia* 2, bipartibilia v. integra, caudicula brevi, glandula transversa.—Epiphytæ *(Americanæ) pseudo-bulbosæ, acaules, v. caulescentes.* Folia *plicata, v. coriacea.* Pedunculi *radicales, axillares, v. terminales, uni- v. multiflori. Lindl.*

Specific Name and Character.

Maxillaria *Steelii ;* pseudo-bulbis oblongis annulatis monophyllis, folio longissimo tereti hinc canaliculato, scapo radicali brevi unifloro, perianthio connivente, labello trilobo basi intus glandula oblonga, lateribus inflexis, lobo intermedio obtusissimo bifido.

This highly interesting Orchideous plant was obligingly communicated from the stove of John Moss, Esq., Otterspool, near Liverpool, together with a drawing by Miss Moss, from which the accompanying figure was made. It was introduced in July of last year (1836) by Matthew Steele, Esq., from Demerara. With the flower of Maxillaria, it has a foliage quite at variance with any described species of that Genus, attaining a height of two and even three feet, and proves a most valuable addition to our Epiphytes.

Descr.

Descr. *Pseudo-bulbs* numerous, clustered, small, oblong, terete, brownish-green, marked with transverse, jagged, membranous rings ; from the top of this arises a single *leaf*, which suddenly bends almost at an angle, and then hangs down over the sides of the pot, to the length of two or three feet, it is cylindrical, as thick as a swan's quill, with a narrow groove on the upper side which is chiefly seen near the base. The *scape* is short and single-flowered ; the *blossom* rather large, fragrant, of a dingy reddish-yellow colour ; the *perianth* connivent, blotched with deep purple; *sepals* oval, acute ; *petals* oblongo-obovate ; *Lip* very broad, streaked with purple, three-lobed, the sides much incurved, the middle lobe very obtuse : at the base of the lip within is a large depressed, oblong, bright yellow *gland*, streaked with red and crenate at the truncated apex. *Column* semi-cylindrical, decurrent below with the two lower *sepals*, so as to form a blunt spur. *Anther* hemisphærical. *Pollen-masses* two, bipartite, fixed to a large transverse gland, by two short *caudiculæ*.

Fig. 1. Front view of a Flower. 2. Side view of the Lip. 3. Inner view of ditto to show the Gland, the sides being laid open. 4. Column, the Perianth being removed. 5. Pollen-masses :—all but fig. 1. *magnified.*

W. Fitch del.

Pub. by S. Curtis. Glazenwood Essex. May 1. 1837

Linum monogynum. Monogynous Flax.

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Class and Order.

Pentandria Monogynia.

(Nat. Ord.—Lineæ.)

Generic Character.

Flores proportione partium quinaria. *Sepala* integra. *Styli* rarissime 3, cum petalis staminibus sepalisque 5. *De Cand.*

Specific Character and Synonyms.

Linum *monogynum;* perenne, foliis alternis lanceolatis acutis sepalisque trinerviis, floribus corymbosis (albis), stylo unico.

Linum monogynum. *Forst. Prodr. p.* 23. *De Cand. Prod. v.* 1. *p.* 428. *Spreng. Syst. Veget. v.* 1. *p.* 963. *Sweet, Br. Fl. Gard. p.* 278.

Of this species of Flax, remarkable for its corymbs of large white flowers, nothing seems to have been known since the days of Forster, who detected it in New Zealand, till very recently, when a figure and description of it appeared in Sweet's British Flower-Garden. But no mention is made of the time when, nor of the person by whom, living plants were introduced into this country.

Our specimens were derived from Bagshot Park, by favour of Mr. Toward. The species is a very desirable one, blossoming in the greenhouse in May and June, and having a succession of flowers for a great length of time.

Descr. Our plants are a foot and a half or more high; the *stems* erect, rounded, glaucous, branched very much at the top in a corymbose manner. *Calyx* of five ovate, very acute *sepals*, with one long, central rib, and two lateral and shorter ones, the margin white and diaphanous. *Petals* five,

five, handsome, large, white, broadly obovate, obtuse, at the apex tapering into claws. *Stamens* five, white; *Anthers* linear-sagittate. *Pistil* globose; *Styles* combined into one, with five reflexed, slender branches. *Capsule* globose, very acute, tipped with the withered style.

Fig. 1. Flower, from which the Petals have been removed. 2. Fruit:—*magnified.*

W Fitch del.

Pub by S Curtis Glazenwood Essex May 1 1837

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PLATYSTIGMA LINEARIS. LINEAR-LEAVED PLATYSTIGMA.

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Class and Order.

POLYANDRIA TRIGYNIA.

(Nat. Ord.—PAPAVERACEÆ.)

Generic Character.

Sepala 3, ovata, caduca, pilosa. *Petala* 4, 5. *Stamina* numerosa. *Filamenta* filiformia. *Antheræ* lineares, bilo-culares, lateraliter dehiscentes. *Stigmata* 3, ovata, acuta, erecto-divergentia. *Capsula* oblonga, basi attenuata, 1-locularis, 3-angularis, 3-sulcata, 3-valvis, ab apice ad basin dehiscens : valvulis conduplicatis, margine in placentis filiformibus productis. *Semina* numerosa, minuta, ovoidea, nigra, lævissima, nitida. *Benth.*

Specific Name and Synonyms.

PLATYSTIGMA * *linearis.*
PLATYSTIGMA linearis. *Benth. in Hort. Trans. N. S. v.* 1. *p.* 407. *Fischer et Meyer, Ind. Sem. Hort. Petrop. p.* 22. *Hook. Ic. Select. v.* 1. *t.* 38.

A very pretty annual, native of California, where it was discovered by Mr. DOUGLAS: but it does not appear that the plant has been raised at the Horticultural Society. Mr. BENTHAM's characters were derived from dried specimens. Seeds, however, have been sent from Ross in New California to the Petersburg Garden, and from thence to the Glasgow Botanic Garden, where our plants flowered in August and September, in the open border.

DESCR.

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* πλατυς, *large*, and στιγμα, the *stigma*.

Descr. *Root* annual. *Leaves* radical, linear, acute, glaucous, two to three inches long, glabrous, single-nerved. *Scapes* several from the same root, a span high, clothed with spreading hairs. *Flowers* drooping before expansion, then erect. *Calyx* of three leaves, generally caducous, sometimes remaining for a time in a withered state. Three outer *petals* broadly obovate, full yellow, pale at the sides; three inner narrower, white, yellow at the claw. *Stamens* not numerous, yellow; *filaments* decidedly dilated. *Anthers* oblong. *Germen* ovato-triquetrous. *Stigmas* three, sessile, ovate.

Fig. 1. Outer Petal. 2. Inner ditto. 3. 3. Stamens. 4. Pistil :—*magnified.*

" Fitch del.

Pub by S. Curtis Glazenwood Essex May 1 1837.

Swan Sc

GESNERIA SCEPTRUM, γ *ignea*. SCEPTRE-FLOWERED GESNERIA, pale-flowered *var*.

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Class and Order.

DIDYNAMIA ANGIOSPERMIA.

(Nat. Ord.—GESNERIACEÆ.)

Generic Character.

Calyx 5-partitus, (plerumque germini adnatus). *Corolla* tubuloso-campanulata, limbo bilabiato ; labio superiore bi-inferiore trifido. *Stigma* bilobum. *Capsula* bilocularis, bivalvis, placentis parietalibus.

Specific Character and Synonyms.

GESNERIA *Sceptrum ;* elata molliter villosa, foliis subsessilibus ternatis e subcordata basi oblongis obtuse serratis, verticillis aphyllis, pedunculis longitudine florum laciniis calycinis lanceolatis appressis, labio superiore paululum productiore, glandulis hypogynis 5.

GESNERIA Sceptrum. *Mart. Gen. et Sp. Pl. Brasil. v. 3. p. 32. t. 214.*

(γ.) *ignea ;* corollis pallide igneis versus limbi marginem rubentibus. (Tab. nostr. 3576.)

Our intercourse with Brazil has made known to our collections several species of this beautiful tropical Genus, than which few are more ornamental to our stoves. The foliage is mostly of a full and vivid green, and the flowers are remarkable, in general, for their rich colour, frequently inclining to, or altogether scarlet. This plant was introduced by Mr. MURRAY to the Glasgow Garden. It flowered with us in September, 1836, and proves to be the var. *ignea* of G. *Sceptrum* of MARTIUS. In many respects it approaches our G. *Lindleyi,* HOOK. in Bot. Mag., ined. (G. *rutilans, var. atro-sanguinea* of LINDLEY): but the present

present has constantly ternate, nearly sessile, more cordate leaves, shorter peduncles, larger flowers, differently-shaped calycine segments, and the whole plant is clothed with copious soft hairs.

Descr. *Stem* three feet high, simple, rounded, veiny, hairy. *Leaves* three in a whorl, three to four inches long, almost entirely sessile, from a somewhat cordate base, oblong, rather acute, bluntly serrated at the margin, on both sides copiously clothed with soft pubescence, especially beneath, where the colour is paler, and the nerves more prominent. The *leaves* gradually become smaller upwards, and pass into bracteas beneath the flowers. These latter form several leafless *whorls*, of about three in a whorl, with lanceolate bracteas at the base. *Peduncles* two inches long, hairy. *Calyx* very hairy, cut into five deep, lanceolate, acuminate, appressed segments. *Corolla* hairy, as long as the peduncles, tubular, dull pale reddish-yellow, with a darker edge to the limb, of which the upper lip is a little longer than the lower; *lobes* all rounded. *Hypogynous glands* five, two of which stand close together. *Style* and *Stamens* included.

Fig. 1. Pistil, with the hypogynous Glands.

W. Fitch del.

Essex June 1 1837.

Brassia Lanceana. Mr. Lance's Brassia.

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Class and Order.

Gynandria Monandria.

(Nat. Ord.—Orchideæ.)

Generic Character.

Perianthium explanatum. *Sepala* et *petala* angusta, libera, æqualia, his nunc minoribus. *Labellum* planum, indivisum, ecalcaratum, columna continuum, basi bicristatum. *Columna* libera, aptera, nana. *Anthera* 1-locularis. *Pollinia* 2, postice sulcata; *caudicula* brevi; *glandula* crassa. —Epiphytæ *pseudo-bulbosæ*. Folia *pergamenea*. Scapi *radicales vaginati*. Flores *speciosi, spicati*. *Lindl.*

Specific Character and Synonym.

Brassia *Lanceana;* sepalis ovato-lanceolatis acuminatis, labello oblongo acuminato undulato sepalis lateralibus duplo breviore. *Lindl.*

Brassia Lanceana. *Lindl. Bot. Reg. t.* 1754.

A truly handsome plant, apparently blossoming at very different seasons. With Mr. Loddiges, it has flowered in August. I received beautiful specimens from C. S. Parker, Esq., of Liverpool, in December, 1836, and, at the same season, plants that had been liberally communicated by Mr. Lowe, blossomed in the Glasgow Garden. It is said to be a native of Surinam, (whence it was introduced to our gardens by Mr. Lance), and also of the Province of Rio Negro, South Brazil.

Descr. *Pseudo-bulbs* ovato-oblong, compressed, furrowed, especially in the old state, when they also acquire a brownish tinge. *Leaves* two, from the summit of the bulb, and two or three are often seen at the base, between oblong and lanceolate, striated. *Peduncle* from the base of the bulb,

bulb, rounded, terminating in a long *raceme* of large, handsome, fragrant subsecund flowers. *Perianth* spreading ; *sepals* and *petals* lanceolate, acuminate, yellow, spotted with blood-red : the former nearly equal in size, the latter shorter. *Lip* large, oblong, waved, yellow, very acute, spotted only at the base, and there having a large tubercle deeply furrowed, and orange-coloured within the furrow. *Column* short : *Anther* hemispherical.

Fig. 1. Germen, Column, and Lip : *magnified.*

W. Fitch del.

Pub by S. Curtis Glazenwood Essex June 1837

Swan.

LEPTOSIPHON DENSIFLORUS. THICKLY-FLOWERING LEPTOSIPHON.

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Class and Order.

PENTANDRIA MONOGYNIA.

(Nat. Ord.—POLEMONIACEÆ.)

Generic Character.

Calyx tubuloso-campanulatus, æqualis, semi- 5-lobus, lobis lineari-subulatis, acutis, sinubus membranaceis. *Corolla* infundibuliformis (hypocrateriformis); tubo longe exserto tenuissimo; limbo campanulato (patenti 5-fido); lobis ovalibus obtusis integerrimis. *Stamina* fauce inserta; *antheræ* oblongæ, basi sagittatæ. *Capsulæ* loculi polyspermi.—Herbæ *annuæ basi glabræ, apice pubescentes.* Folia *sessilia opposita, palmatisecta, segmentis linearibus vel subulatis.* Flores *dense corymboso-capitati, axi sublanato.* Bracteæ *imbricatæ foliis conformes, segmentis ciliato-hirsutis. Bentham.*

Specific Character and Synonyms.

LEPTOSIPHON *densiflorus;* foliis 7—9-partitis laciniis filiformi-subulatis hirsutulis, corollæ tubo limbo breviore, laciniis obovatis.

LEPTOSIPHON densiflorus. *Benth. in Bot. Reg. t.* 1622 (in textu). *Hort. Trans. N. S. v.* 1. *t.* 18. *f.* 2.

A very handsome annual, introduced by Mr. DOUGLAS to the Horticultural Society's Garden, from California, at the same time with the L. *androsaceus* (tab. 3491). It is equally hardy with that species, and, in many respects, very similar to it; but the leaves have more numerous and narrower segments, the flowers, varying in colour, are much larger, the tube is shorter in proportion to the limb, and

and the segments of this latter are obovate. It blossoms at the same time with L. *androsaceus*, adding greatly to the gaiety of our flower-borders.

Descr. *Stem* erect, slender, flexuose, rounded, glabrous, branched, with the branches opposite. *Leaves* opposite, often crowded immediately beneath the flowers, palmately divided, almost to the base, into from seven to nine slender, filiform-subulate segments, slightly hairy, most so near the base. *Flowers* capitate. *Calyx* with five subulate segments, as long as the tube of the corolla. *Corolla* hypocrateriform; the *tube* white: *limb* longer than the tube: the *segments* obovate, lilac, more or less inclining to a deep rose-colour or purple, becoming almost blue in age; the inside of the tube white; sometimes the corolla is wholly white. *Stamens* scarcely exserted. *Anthers* bright orange.

Pub. by S. Curtis, Alexander Wood, Essex Street, 1837.

PLATYSTEMON CALIFORNICUM. CALIFORNIAN PLATYSTEMON.

Class and Order.

POLYANDRIA POLYGYNIA.

(Nat. Ord.—PAPAVERACEÆ.)

Generic Character.

Sepala 3, ovata, caduca, pilosa. *Petala* 6. *Stamina* numerosa. *Filamenta* dilatata, membranacea, obcordata. *Antheræ* lineares, biloculares, lateraliter dehiscentes. *Ovaria* plurima (10 et ultra) linearia, stigmate sessili lineari terminata. *Capsulæ* totidem distinctæ torulosæ, articulatæ, transversim multiloculares extus piloso-hispidæ. *Semina* in quoque loculo solitaria pendula. *Benth.*

Specific Character and Synonyms.

PLATYSTEMON * *Californicum;* ovariis fructibusque pilosis.
PLATYSTEMON Californicum. *Benth. in Hort. Trans. v.* 1. *N. S. p.* 405. *Lindl. Bot. Reg. t.* 1679.

A highly interesting annual, for the introduction of which to our gardens we are indebted to Mr. DOUGLAS, who sent the seeds to the Horticultural Society from California. Mr. MENZIES, however, was the first to discover it in that country, when on the voyage round the globe with Capt. VANCOUVER. His specimens are preserved in my Herbarium, and doubtless in those of other Botanists on whom he has bestowed them with his wonted liberality. In the recent specimen which I examined, the germen on being laid open showed one cell, with as many projections and furrows as there

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* From πλατυς, *broad*, and στημων, a *stamen*, in allusion to the breadth of the filaments.

there are styles : as this advances to maturity, a separation takes place at the ridges, the sutures unite, and the fruit is separated into carpels. Our plants, for the seeds of which we are indebted to the Horticultural Society, flowers in June and July, and proves perfectly hardy, ripening its seeds very copiously.

Descr. *Root* annual. *Stems* weak, branched, rounded, succulent, glabrous. *Leaves* three to four inches long, linear-oblong, usually in *whorls* of three each, entire, sessile, ciliated, marked with three to four parallel nerves, glaucous, as is the whole plant. *Peduncles* axillary, longer than the leaves, single-flowered, somewhat hispid with patent hairs. *Sepals* three, oval, concave, hispid, soon falling away. *Petals* six, oval-oblong, concave, spreading, of a pale sulphur yellow. *Stamens* several. *Filaments* broad, petaloid, the inner ones gradually broader: *Anthers* linear-oblong, terminal. *Germen* oval, bristly, with six to nine deep furrows, and an equal number of linear, downy *styles*: eventually separating into as many distinct, cylindrical, knotted *carpels* as there are ridges.

Fig. 1. 2. Stamens. 3. Pistil. 4. Germen laid open. 5. Carpel.

Pavetta Caffra. South-African Pavetta.

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Class and Order.

Tetrandria Monogynia.

(Nat. Ord.—Rubiaceæ.)

Generic Character.

Calycis tubus ovatus, *limbus* parvus 4-dentatus. *Corolla* hypocraterimorpha, tubo gracili tereti lobis longiore, limbo 4-partito patente. *Antheræ* 4 ad faucem subsessiles. *Stylus* longe extra tubum corollæ exsertus, loborum longitudinem superans, apice clavatus, subinteger aut stigmatis cruribus adglutinatis aut vix ac ne vix subdivisis. *Bacca* drupacea calyce persistente coronata subglobosa bilocularis. *Pyrenæ* chartaceæ intus planæ aut concavæ dorso gibbæ 1-spermæ. *Albumen* cartilagineum. *Embryo* dorsalis erectus incurvus, *cotyledonibus* foliaceis, *radicula* longa. —Flores *albi*. Species *omnes Asiaticæ aut Africanæ*. *D C.*

Specific Character and Synonyms.

Pavetta* *Caffra;* foliis obovatis ramisque glabris, stipulis subulatis basi herbaceo-membranaceis connatis, cymis fastigiatis, calycibus 4-fidis segmentis subulatis, corollæ lobis obovato-oblongis mucronulatis tubo brevioribus. *Grah.*

Pavetta Caffra. *Thunb. Prodr. p.* 29. *Fl. Cap. v.* 1. *p.* 535. *D C. Prodr. v.* 4. *p.* 491. *Ræm. et Sch. Syst. Veg. v.* 3. *p.* 175. *Spreng. Syst. Veg. v.* 1. *p.* 407.

Ixora Caffra. *Poir. Suppl. v.* 3. *p.* 209.

Pavetta corymbosa. *Houtt. Pfl. ed.* 1. *p.* 11. *t.* 40.

This very pretty species, native of Southern Africa, was received from Kew at the Botanic Garden Edinburgh in 1835,

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* The name of the Shrub in the Malabar language.

1835, and flowered freely in the stove in the end of April and beginning of May following, when scarcely nine inches high.

Descr. *Shrub* erect, *branches* ascending, whole plant glabrous, except the stigma and the inside of the tube of the corolla. *Leaves* (two and a half inches long, one and a quarter broad) obovate, petioled. *Stipules* subulate, herbaceous, small, dilated, connate, and membranaceo-herbaceous at the base, persisting. *Flowers* in dense terminal cymes, perfumed: *pedicels* with two opposite filamentous *bracteas* in the middle. *Calyx* four-cleft, herbaceous, segments subulate. *Corolla* white, hypocrateriform; *tube* (seven and a half lines long) slender, cylindrical, greenish towards its base, hairy within, especially in its upper part, hairs somewhat reflected; *limb* four-parted, (three-fourths of an inch across) flat, in the bud imbricated and slightly convolute; *segments* obovato-oblong, with a small mucro in the centre, from which a dark-green streak passes for a little way along the back. *Stamens* alternate, with the lobes in the throat of the corolla, and becoming reflected between these. *Anthers* linear, cleft at the base, pointed at the apex; *filaments* short, attached to the back of the anther at the top of the notch; *pollen-granules* minute, rounded, white. *Pistil* more than twice as long as the tube of the corolla; *stigma* clavate, green, pubescent, the hairs being arranged in many vertical lines; *style* white, erect, filiform. *Germen* inferior, crowned with a small depressed disk, which is superior. *Graham.*

W Fitch del Pub by S. Curtis Glazenwood Essex June 1 1837 Swan Sc

ONCIDIUM PUMILUM. MR. HERBERT'S DWARF ONCIDIUM.

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Class and Order.

GYNANDRIA MONANDRIA.

(Nat. Ord.—ORCHIDEÆ.)

Generic Character.

Perianthium explanatum. *Sepala* sæpius undulata; lateralibus nunc sub labello connatis. *Petala* conformia. *Labellum* maximum ecalcaratum, cum columna continuum, varie lobatum, basi tuberculatum v. cristatum. *Columna* libera, semiteres, apice utrinque alata. *Anthera* semibilocularis, rostello nunc abbreviato, nunc elongato rostrato. *Pollinia* 2, postice sulcata; *caudicula* plana; *glandula* oblonga. Herbæ *epiphytæ nunc pseudo-bulbosæ.* Folia *coriacea.* Scapi *paniculati vaginati, rarius simplices.* Flores *speciosi lutei, sæpius maculati, raro albi. Lindl.*

Specific Name and Synonyms.

ONCIDIUM *pumilum;* pseudo-bulbis nullis, foliis rigidis oblongis obliquis, panicula erecta thyrsoidea foliorum longitudine, sepalis petalisque obovatis incurvis, labello subrotundo trilobo, lobis ovatis obtusis intermedio paulo minore, disco callis duobus longitudinalibus sinubus loborum oppositis cristato, alis columnæ integerrimis. *Lindl.*

ONCIDIUM pumilum. *Lind. Bot. Reg. t.* 920. *Loddiges, Bot. Cab. t.* 1732. *Lindl. Gen. et Spec. Orchid. p.* 205.

(β.) alis columnæ cuneiformibus, crista labelli obsoleta, foliis atro-viridibus vix maculatis, statura majore. *Lindl. l. c.*

This singular little epiphyte was introduced by the Hon. and Rev. WILLIAM HERBERT of Spofforth, in whose collection

collection it flowered about ten years ago. It was detected by one of his collectors in Brazil, between Rio Janeiro and Botofogo, growing upon the trunk of Bombax *Ceiba*. We are indebted for our plants in the stove of the Glasgow Botanic Garden to Mr. Loddiges. It flowers in April and May.

Descr. *Bulbs* (or *pseudo-bulbs* as they are generally called) none; a few *roots* proceed from the base of the exceedingly short *stem*. *Leaves* oblong, coriaceous, rigid, somewhat distichous, oblique, acute at the point, of a deep green colour. The *scape* arises from the axils of one of these *leaves*, and, including the *flowers*, is scarcely so long as the foliage. *Flowers* small, arranged in a compound *raceme* or a lax thyrsus, which is erect. *Perianth* spreading, yellow, jagged at the margin. *Sepals* and *petals* combined at the base, oblongo-spathulate, spreading, spotted with brown. *Lip* roundish, three-fid, entirely yellow, except along the margin on each side at the base where is a deep red-brown line: the *segments* are acute, incurved, the disk is furnished with a bifid crest, and each segment is again divided into two unequal ones. *Column* short, furrowed in front, with a long, spreading, linear-oblong wing on each side. *Anther-case* large, ovato-acuminate. *Germen* quite straight, hence the lip is superior.

Fig. 1. Back view of a Flower. 2. Front view of ditto (reversed). 3. Column, the Anther-case being bent back:—*magnified.*

W. Fitch del.

Pub. by S. Curtis, Glasshouse Yard, Jan. 1 1837.

XANTHOSIA ROTUNDIFOLIA. ROUND-LEAVED XANTHOSIA.

Class and Order.

PENTANDRIA DIGYNIA.

(Nat. Ord.—UMBELLIFERÆ.)

Generic Character.

Calycis tubus ovato-compressus, *limbus* 5-lobus, lobis ovatis acutis subcoloratis. *Petala* stipitata, ovalia, apice cuspidata replicata. *Stamina* lobis calycinis opposita. *Stylopodia* 2 crassa, villosa (vix semper) ad apices carpellorum. *Styli* 2, filiformes e basibus internis stylopodiorum orti. *Fructus* compressus striato-nervosus, mericarpiis ad commissuram contractis 7—9-jugis, jugis filiformibus, 2 lateralibus marginantibus, valleculis evittatis, commissura angustissima evittata.—Suffrutices *Australasici, pilis sæpius stellatis hirsuti.* Folia *alterna simplicia aut tripartita.* Umbellæ *variæ. D C.*

Specific Character and Synonym.

XANTHOSIA* (Sect. LEUCOLÆNA) *rotundifolia;* glabra vel pubescens fruticosa, foliis petiolatis cordato-rotundatis grosse dentatis coriaceis glabris, umbella 4-radiata, involucri tetraphylli foliolis lineari-lanceolatis, involucellis monophyllis latissimis profunde trifidis albis.

XANTHOSIA rotundifolia. *De Cand. Prodr. v. 4. p. 75.*

This extremely curious umbelliferous plant, so unlike in habit to the majority of individuals of this extensive Natural Order, is a native of New Holland, where it appears to

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* ξανθος, *yellow;* from the yellowish tomentum with which some species are clothed.

to be not uncommon. We have numerous specimens from the vicinity of Port Jackson and from King George's Sound. The Glasgow Botanic Garden owes the possession of it to Mr. Loddiges, and it flowers with us in the month of June. It may be reckoned a hardy green-house plant.

Descr. *Stem* a foot to a foot and a half high, shrubby, slightly branched, clothed with a brown *bark*, which in our plant is but slightly hairy. *Leaves* alternate, cordate, sometimes approaching to ovate, sometimes to rotundate, coriaceous, glabrous, or partially clothed with deciduous down, acute, deeply and sharply toothed at the margin: *petiole* one-fourth the length of the leaf, scarcely dilated at the base. *Peduncles* terminal, elongated, sometimes with a coloured bractea. *Umbels* of four rather short rays. *Involucre* of four linear-lanceolate reddish-green leaves. *Involucels*, one at the base of each partial and nearly sessile and few-flowered umbel, large, petaloid, pure white, or externally only slightly tinged with red, concave, deeply three-cleft, with acute, spreading segments. *Flowers* few, six to eight in each involucre, white, the anthers and the upper margin of the germen only being red. *Calyx* of five large, deciduous sepals, jointed as it were on the top of the germen, erect. *Petals* erect, oval, unguiculate, with a large involute appendage. *Filaments* incurved at the apex: *Anthers* oval. *Young fruit* roundish, remarkably flattened on the sides, many-ribbed. *Stylopodium* of two large, rounded, fleshy lobes. Some of the flowers are imperfect.

Fig. 1. Flower. 2. Back view, and 3, front view of a Petal. 4. Stamen. 5. Immature Fruit:—*magnified.*

CHRYSOSTEMMA TRIPTERIS. THREE-LEAVED CHRYSOSTEMMA.

Class and Order.

SYNGENESIA FRUSTRANEA.

(Nat. Ord.—COMPOSITÆ.)

Generic Character.

Capitulum multiflorum heterogamum, *fl. radii* neutris 1-serialibus ligulatis, *disci* hermaphr. tubulosis 5-dentatis. *Involucrum* biseriale, squamis foliaceis basi coadunatis, *ext.* paucis parvis linearibus patentibus, *inter.* erectis ovali-oblongis margine subscariosis. *Receptaculum* planum, paleis linearibus angustissimis fere filiformibus. *Styli* rami cono superati pubeque descendente instructi. *Achenium* plano-obcompressum obovato-ellipticum angulis alatum glaberrimum apice emarginatum, pappo coroniformi lacero coronatum, disco epigyno minuto, alis albidis.—Herba *Boreali-Americana nitida erecta.* Folia *opposita petiolata, ima subpedato-pinnatifida, superiora trisecta, segmentis lanceolatis integerrimis.* Pedunculi *subgemini* 1-*cephali.* Capitula *radio luteo, disco brunneo.* *D C.*

Specific Name and Synonyms.

CHRYSOSTEMMA * *tripteris.*

CHRYSOSTEMMA tripteris. *Less. Syn. Compos. p.* 227. *D C. Prodr. v.* 5. *p.* 568.

COREOPSIS tripteris. *Linn. Sp. Pl. p.* 1282. *Mich. Fl. Amer. v.* 2. *p.* 148. *Pursh, Fl. Am. v.* 2. *p.* 368. *Elliott, Fl. Carol. v.* 2. *p.* 442. *Spreng. Syst. Veg. v.* 3. *p.* 614.

This very handsome plant, although a well-known inhabitant of our gardens for a period of one hundred years, has not

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* From χρυσος, *gold,* and στεμμα, a *crown,* from the colour of the flowers.

not (perhaps for want of novelty to recommend it) found a place in any of our periodical botanical publications. It is a native of Virginia, Carolina, and Georgia, chiefly in the upper districts, and was introduced by Mr. Philip Miller. It flowers from August till October, when the cold and frosts cause it to perish down to the root.

Descr. *Stem* erect, straight, rigid, five to six feet high, glabrous, striated, branched, especially upwards, and there in a paniculated manner. *Leaves* opposite, on short petioles, the lower ones generally more or less bipinnate, becoming pinnate upwards, and the uppermost deeply tripartite, when they pass into the simple bracteas of the peduncle, all of them glabrous, somewhat rigid, spreading or recurved, of a dark green colour, the segments quite entire, of a linear-lanceolate form, but varying somewhat in width in different individuals. *Panicle* trichotomous. *Peduncles* with linear bracteas. *Involucre* glabrous: outer of seven to eight, linear, obtuse, spreading, green scales: *inner* of as many close-pressed, ovate, brownish, and somewhat membranaceous ones. *Florets of the ray* yellow, at first singularly involute in the margins, and entire at the extremity, but soon unfolding and becoming bi- trifid at the apex. *Disk* purple: base of the tubular corolla only yellow: *Anthers* and filiform segments of the *style* dark purple. *Achenium* compressed, slightly winged at the margin, especially upwards, but quite destitute of awns.

Fig. 1. Floret of the Ray. 2. Ditto of the Disk: *magnified.*

1

CLIANTHUS PUNICEUS. CRIMSON GLORY-PEA.

Class and Order.

DIADELPHIA DECANDRIA.

(Nat. Ord.—LEGUMINOSÆ.)

Generic Character.

Calyx late campanulatus, subæqualis, 5-dentatus. *Vexillum* acuminatum, reflexum, alis parallelis longius; *carina* scaphiformis, vexillo alisque multo longius; omnino monopetala. *Stamina* manifeste perigyna, diadelpha, omnia fertilia. *Stylus* staminibus duplo longior, versus apicem hinc leviter barbatus, stigmate simplicissimo. *Legumen* pedicellatum, coriaceum, acuminatum, ventricosum, polyspermum, intus lanulosum, sutura dorsali recta ventrali convexa. *Semina* reniformia, funiculis longiusculis affixa.—Suffrutices, Herbæve; foliis *impari-pinnatis, stipulatis,* floribus *speciosissimis, racemosis. Lindl.*

Specific Character and Synonyms.

CLIANTHUS * *puniceus;* fruticosus diffusus glaber, foliolis alternis oblongis subemarginatis, racemis pendulis multifloris, calyce 5-dentato, legumine glabro.

CLIANTHUS puniceus. *Soland. MSS. in Mus. Brit. Allan Cunningham, in Hort. Trans. v.* 1. *n. s. p.* 521. *t.* 22. *Bot. Reg. t.* 1775.

DONIA punicea. *Don's Gen. Syst. of Gardening,* 2. 468.

We received at the Botanic Garden Edinburgh, this strikingly handsome plant from Mr. LOWE, of the Clapton Nursery,

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* From κλειος, *glory,* and ανθος, a *flower,* in allusion to the great beauty of the blossoms.

sery, in 1835. It has been cultivated in Scotland, both in the open ground and in the greenhouse. In the former it lives, but unfortunately does not thrive, and will never be ornamental, unless, perhaps on a good wall, and well protected in winter. In the latter situation it is most luxuriant, but has produced no fruit with us. It first flowered in February, 1837, and will probably exhibit a long succession of blossoms.

[In the South of England, this splendid plant bears the winters with impunity, and in Devonshire and the Isle of Wight, fully authorises the generic name given to it by the learned Solander (*Flower of Glory*). It was discovered by Sir Joseph Banks in New Zealand, in the northern interior, in 1769, and again by the Missionaries in 1831. Mr. Curtis, who has raised numerous plants of it at his extensive nursery grounds at Glazenwood, has been furnished with the following particulars respecting its introduction, &c., to this country, by Mr. Vaux of Ryde, Isle of Wight, where the plant grows luxuriantly, and blossoms freely in the open air without the slightest protection. "Mr. Richard Davis, Missionary Catechist at New Zealand, sent the seed of Clianthus *puniceus* to the Rev. John Noble Colman, 5, Terrace, Ryde, who sowed it as soon as it was received in the autumn of 1831. In the following spring, Mr. Colman had several fine plants. In the autumn of 1832 some of the plants had indications of blossoms forming, and in the spring, or rather summer of 1833, they flowered most beautifully, and produced seed-vessels, one of which was forwarded to the London Horticultural Society, and engraved in the Transactions of that valuable body. The propagation is extremely simple. Cuttings strike readily under a hand-glass in any soil; indeed, where any bud of the growing plant touches the ground, it will take root like a Mimulus, or like Verbena *Melindres*. The cuttings appear to succeed equally well, whether stripped off or clean cut out under a joint, and I have not found any difference as to ripened or green shoots." The native name of the plant, according to Mr. Cunningham, is *Kowaingutu-Kaka*, or *Parrot's-bill*. Ed.]

Descr. *Stem* shrubby. *Bark* cracked, but otherwise smooth, round. *Branches* diffused, green, glabrous, slightly angled. *Leaves* alternate, pinnated, with an odd leaflet; common petiole round, with a slender furrow above, tapering to the apex, pinnæ ten to twelve pairs, nearly sessile, alternate towards the apex of the leaf, subopposite below, largest

largest in the middle, oblong, subemarginate, minutely mucronate, opaque, green and glabrous above, paler, and with minute adpressed pubescence below, edges slightly revolute, middle-rib channelled above, prominent and round below. *Racemes* axillary, pendulous, many-flowered; lower flowers expanded first, flexuose; *common peduncle* and *pedicels* green and slightly pubescent, each pedicel springing from the axil of a small, green, ovato-lanceolate, spreading bractea, and with two subopposite bracteoles in the middle. *Calyx* campanulate, green, its mouth somewhat oblique, with five subequal, deltoideo-subulate, adpressed teeth. *Corolla* of nearly uniform red, and becoming livid in fading, very handsome, but the whole raceme is less so than it otherwise would be, in consequence of the gradual elongation of the pedicels being disproportionately greater than the rachis, by which the whole forms a dense and confused ovate mass. *Vexillum* ovato-acuminate, reflected from near its base, slightly striped with white near its centre, somewhat callous at the keel. *Alæ* about half as long, narrow, oblong-sickle-shaped, with a callous, colourless, curved *claw*, and a *tooth* on its upper edge of nearly a similar texture, but shorter. *Carina* as long as the vexillum, nearly colourless on its inside in the lower half, monopetalous, with a colourless undivided claw and short blunt tooth on the edge on each side, acuminate, curved forwards. *Stamens* ten, diadelphous; *filaments* colourless; *anthers* uniform, oblong, yellow; *pollen-granules* minute, golden coloured, shining, round. *Pistil* green, as long as the keel, and closely wrapped up in it; *germen* glabrous, furrowed along its upper edge. *Style* covered with long, simple white hairs in a line along its upper side, and extending nearly to its middle. "The flowers are succeeded by brownish-black *pods*, two inches and a half long, seated on a slender stipe, and convex on the upper instead of the lower edge, so that unless attention be given to the manner of growth, it would seem as if the seeds grew from the lower instead of the upper edge. They are covered all over with a delicate cottony down, in which lie the small, kidney-shaped seeds, of a dull yellowish ochre colour, mottled with small dark-brown blotches and speckles." *(Hort. Trans. l. c.)* *Graham.*

3585.

ZYGOPETALUM COCHLEARE. SHELL-LIPPED ZYGOPETALUM.

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Class and Order.

GYNANDRIA MONANDRIA.

(Nat. Ord.—ORCHIDEÆ.)

Generic Character.

Perianthium explanatum, sepalis petalisque ascendentibus, subæqualibus, cum ungue producto columnæ connatis. *Labellum* muticum, indivisum, patens, ungue ascendente : crista magna transversa carnosa. *Columna* brevis, arcuata, semiteres. *Anthera* subbilocularis. *Pollinia* 2, bipartibilia, in glandulam transversam subsessilia.—Herbæ *terrestres, subacaules; foliis plicatis patentibus.* Flores *speciosi, labello cæruleo. Lindl.*

Specific Character and Synonyms.

ZYGOPETALUM *cochleare ;* pseudo-bulbo nullo, foliis lato-lanceolatis, scapo unifloro, sepalis petalisque oblongis subæqualibus, labello subquadrato basi ventricoso lateribus inflexis crispatis callo baseos lunato depresso antice crenato.

ZYGOPETALUM cochleare. *Lindl. Bot. Reg. t.* 1837.

EULOPHIA cochleata. *Hort. Knight.*

This very distinct species of ZYGOPETALUM was sent to the Glasgow Botanic Garden by Mr. KNIGHT of the Ball's Pond Nursery, under the name of EULOPHIA *cochleata*. It is probably a native of Brazil *. Its handsome flower is produced in August.

DESCR.

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* Of Trinidad, according to Professor LINDLEY, who has published a figure and description since the above was written.

Descr. *Pseudo-bulb* none in our specimens. The *leaves* are from eight or ten inches to a foot long, and spring from the root, they are broadly lanceolate, glossy, *yellow* green, scarcely striated, waved, distichous, sheathing at the base. From the axil of one of the outer leaves arises the *scape*, scarcely of the length of one's finger, erect, having two membranous, sheathing bracteas on the top at the base of the germen. *Sepals* and *petals* in one series, oblong, pale greenish-white, spreading, combined at the base: the *petals* rather smaller than the sepals. *Lip* very large, nearly square, set on by a small short claw, very broad and cordate at the base, where it is ventricose, the sides involute and crisped, the apex reflexed, two-lobed: at the base within is a large, lunate, fleshy, depressed crest, lobed and crenated, marked with purple lines as is the lower half of the lip itself; but these lines soon combine, and form a large purple blotch in the upper half of the lip. *Column* short, semiterete, with two small wings above, white, the front delicately streaked with red. *Anther-case* obliquely conical, obtuse.

Fig. 1. Column and upper part of the Lip: *magnified.*

Pub. by S. Curtis, Clarewood, Essex. July 1. 1837.

COREOPSIS LONGIPES. LONG-STALKED COREOPSIS.

Class and Order.

SYNGENESIA FRUSTRANEA.

(Nat. Ord.—COMPOSITÆ.)

Generic Character.

(Compositæ, Senecionideæ.) *Capitulum* multiflorum heterogamum, *fl. radii* circ. 8 neutris ligulatis, *disci* hermaphr. 5-dentatis. *Inod.* duplex utrumque circ. 8. phyllum ima basi subcoadunatum, squamis ext. foliaceis angustioribus subpatulis, int. latioribus submembranaceis. *Recept.* planum paleaceum, paleis persistentibus. *Styli* rami apice hispidi cono superati. *Achenia* obcompresso-plana, raro incurva, margine plus minus alata, apice nunc bidentata, nunc biaristata, aristis lævibus aut sursum ciliato-serratis, (nec retrorsum pilosis).—Herbæ Americanæ, *raro suffrutescentes, plerumque glabræ.* Folia *opposita, rarius alterna.* Pedunculi 1-*cephali solitarii aut corymbosi.* Capituli discus *luteus,* radius *concolor, raro albus.* *D C.*

Specific Name and Character.

COREOPSIS *longipes ;* debilis, foliis oppositis radicalibus spathulatis, caulinis profunde pinnatifidis glabris basi utrinque ciliatis laciniis lineari-lanceolatis integris vel iterum pinnatifidis, pedunculis elongatis, floribus unicoloribus, radii corollis apice 5-fidis.

Among the various species of Coreopsis sent by Mr. DRUMMOND from North America is the present one, found in Texas, which appears to me, both in the living and dried state, to present characters by which it may be separated from all others that have yet been described. In general

general habit it comes nearest to C. *tinctoria* and *Atkinsoniana;* and is, perhaps, as it were, intermediate between them and C. *verticillata*, having broader and less divided leaves than the former, and more flaccid foliage and stems, and a very different inflorescence from the latter. It appears to be annual or biennial, and flowers in the open border in the autumn.

Descr. *Stems* erect, but weak and flexuose, succulent, striated, glabrous, having many straggling and wavy branches. *Leaves* opposite and connate at the base, very variable: the lowermost ones entire, the rest more or less pinnatifid or even bipinnatifid, with the segments from three to five, rarely more, linear-lanceolate, flaccid, glabrous, generally curved, glabrous, strongly ciliated at the base, which forms a kind of broad petiole; and, when seen under a lens, the rest of the margin exhibits minute hairs. *Peduncles* very long, flexuose, naked, or rarely with an undivided leaf, single-flowered. *Involucre* glabrous; *outer* of about eight spreading, ovato-lanceolate, green, acute leaves, diaphanous and ciliated at the margin: *inner* of about as many erect, ovate, obtuse, membranaceous, yellow-brown leaves. *Florets* all full yellow: those of the *ray* oblong-obovate, with five deep, unequal teeth at the extremity: their germen abortive, flat, but having a pappus of two minute, plumose scales. *Tubular* or *central floret* yellow. *Fruit* (immature) compressed, winged, crowned with small, flat, ciliated awns or scales.

Fig. 1. Floret of the Ray. 2. Floret of the Disk.

2
3
1

IMPATIENS SCAPIFLORA. STEMLESS BALSAM.

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Class and Order.

PENTANDRIA MONOGYNIA.

(Nat. Ord.—BALSAMINEÆ.)

Generic Character.

Antheræ quinque, nempe 3 biloculares, 2 ante petalum superius 1-loculares. *Stigmata* 5 coalita. *Capsula* prismatico-teretiuscula, elongata ; valvis a basi ad apicem extrorsum revolutis. *Cotyledones* planiusculæ. *Pedunculi* axillares, ramosi, multiflori. *Capsulæ* glabræ.—Folia *alterna*. *D C.*

Specific Character and Synonyms.

IMPATIENS* *scapiflora ;* radice tuberosa, foliis radicalibus cordatis glanduloso-serratis, scapo apice racemoso, calyce 3-sepalo, sepalo inferiore longissime calcarato, petalo superiore (seu anteriore) galeiformi, reliquis 4 per paria connatis quorum lateralibus oblongo-falcatis, interioribus (v. infimis) oblique cuneatis.

IMPATIENS scapiflora. *Heyne, Wall. in Fl. Ind. v. 2. p.* 464. *Wall. Cat. n.* 4758. *Wight Cat. n.* 446.

IMPATIENS bulbosa. *" Moon Cat. Ceyl. Pl. p.* 18."

IMPATIENS acaulis. *Arn. in Hook. Comp. to Bot. Mag. v.* 1. *p.* 325. (Exempl. in Herb. nostr.)

It has seldom been our good fortune to figure a more interesting plant than the one here given ; or one that, *at first sight*, would appear less to belong to the very natural Genus of which it is, in my opinion, undoubtedly a member, *Impatiens*.

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* So called on account of the elastic nature of the valves of the capsule, which throw out the seeds with considerable force.

tiens. The Glasgow Botanic Garden is indebted for the tubers to William Nimmo, Esq., who sent them in 1835 from Bombay, and they flowered beautifully in the stove in August, 1836. The plant would appear, however, not to be peculiar to the western coast of the Peninsular of India. It is, I think, certainly the I. *scapiflora* of Heyne and Wallich, and, consequently of Wight and Arnott: but the station of the plant does not seem to be known to those authors. Small specimens in our Herbarium were gathered by Mr. Macrae at Kandy, Ceylon, and larger ones were sent to us from the same country by Mrs. Col. Walker. These are probably the I. *bulbosa* of Moon's Catalogue, and certainly the I. *acaulis* of Mr. Arnott in the paper above quoted. There can, indeed, be no question about the identity of these: indeed the smaller Kandyan specimens are considered by Mr. Arnott himself to be the same with Heyne's plant.

Descr. *Root* consisting of small tubers, like those of many Begoniæ, a Genus of plants to which the present bears no inconsiderable resemblance in its leaves and inflorescence, and especially in its succulent habit. *Leaves* all arising from the root, roundish, cordate, glabrous, many-nerved, serrated, the teeth almost intramarginal, pointing upwards, tipped with a gland: the length of the leaf is about equal with that of the rounded petiole. *Scape* a span to eight or ten inches high, rounded, succulent, terminated by a raceme of six to ten large, handsome, one-sided flowers. *Bracteas* solitary, ovato-cordate, concave, fleshy. *Pedicels* quite straight, patent, an inch and a half to two inches long. *Sepals* three: two lateral ones resembling the bracteas, but rather less fleshy, pale reddish-green: lower one white, ovate, concave, lengthened at its base into a slender spur, curved, between three to four inches in length. Upper *petal* white, helmet-shaped, covering the organs of fructification, the other four delicate purple-rose colour, spreading, all on the same plane, combined at the base into two pairs: of these four, the two lateral ones are oblong, singularly recurved like a sickle; the two inner ones longer, straight, obliquely cuneate. *Stamens* five, white, combined by the anthers and upper part of the filaments. *Filaments* dilated upwards. *Anthers* ovate, forming an obtuse cone above the pistil, opening internally by two longitudinal cells. *Pollen* white. *Germen* oval, with five furrows: *Style* short, conical, with three acute stigmas.

Fig. 1. Calyx, lower Petal, Stamens, and Pistil. 2. Stamens and Pistil. 3. Pistil: *magnified*.

W. Fitch del.

Pub. by S. Curtis, Glazenwood, Essex, July 1st 1837.

Swan Sc

CALLIPRORA LUTEA. YELLOW CALLIPRORA.

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Class and Order.

HEXANDRIA MONOGYNIA.

(Nat. Ord.—ASPHODELEÆ.)

Generic Character.

Perianthium subcampanulatum, cum pedicello continuum, 6-partitum. *Stamina* 6, omnia fertilia, fauce exserta, verticillata, quorum 3 breviora; *filamenta* petaloidea, biloba, *antheris* inter lobos sessilibus. *Squamæ hypogynæ* o. *Ovarium* stipitatum, 3-angulare, 3-loculare, polyspermum. *Stylus* simplex. *Stigma* trilobum. *Capsula* membranacea, triptera.—Herba *Allii facie. Lindl.*

Specific Name and Synonym.

CALLIPRORA * lutea. *Lindl. Bot. Reg. t.* 1590.

An exceedingly pretty bulbous Genus, discovered in Northern California by the late Mr. DOUGLAS, and first distinguished as such by Professor LINDLEY in the work just quoted, by the name of CALLIPRORA. That author reckons it a hardy plant, as it flourished well in an open, but shaded peat border in the garden of the Horticultural Society at Chiswick; but with us in Scotland, it is yet too rare and valuable a plant to run any risks by exposing it to the inclement summer of our climate, and it is kept in a pot in the frame, where it expands its exceedingly pretty flowers in July. It differs, as a Genus, from BRODIÆA and TRITELEIA, and LEUCOCORYNE (all from the same country) not only in the different structure of the stamens, as marked by Dr. LINDLEY; but also in the yellow colour of the flowers.

DESCR.

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* καλλιπροφα, *pretty face,* in allusion to its beauty.

Descr. *Root,* a small, pale-coloured, roundish *bulb,* scarcely so large as a *Hasel-nut. Leaves,* solitary in the wild specimens, generally two in the cultivated ones; linear-lanceolate, striated, grooved, attenuated at both extremities, ten to twelve inches long. *Scape* much shorter than the leaves, rounded, bearing an umbel of six to eight bright yellow *flowers* on slender stalks. *Bracteas* four to five, membranous, forming an imperfect involucre. *Perianth* of six leaves, spreading above, united below by the filaments of the stamens, deep yellow within, paler and with a brown streak on the outside, below greenish. *Filaments* six, large, petaloid, deeply bifid, alternately smaller: *Anther* oblong, fixed between the segments of the filament. *Germen* oval-triangular, stipitate: *Style* nearly as long as the germen: *Stigma* glandular, of three deflexed lobes.

Fig. 1. Base of the Perianth, showing the Stamens. 2. Two of the Stamens. 3. Pistil:—*magnified.*

W. Fitch del.

Pub. by S. Curtis, Clarenwood, Essex, July 1. 1837

EUCHARIDIUM CONCINNUM. PRETTY EUCHARIDIUM.

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Class and Order.

TETRANDRIA MONOGYNIA.

(Nat. Ord.—ONAGRARIEÆ.)

Generic Character.

Eucharidium, *Fischer* et *Meyer*.—*Calycis tubus* supra ovarium elongatum, filiformis, cum limbo 4-partito deciduus. *Petala* 4, unguiculata (trifida). *Stamina* 4 ! *Stigma* bilobum. *Capsula* 4-valvis, dehiscens. *Semina* numerosa, in quovis loculo uniserialia, sursum imbricata, erecta, alato-marginata. *F. et M.*

Specific Name and Synonym.

EUCHARIDIUM * *concinnum*.
EUCHARIDIUM concinnum. *Fisch. et Mey. Ind. Secundus, Sem. Hort. Petrop. p.* 37.

A very remarkable and pretty little annual, allied to EPILOBIUM and CLARKIA ; and well distinguished from both by Drs. FISCHER and MEYER in the work above quoted, where many rare Californian plants are first described. The present plant inhabits Ross, in New California. Seeds were kindly sent by Dr. FISCHER to the Glasgow Botanic Garden, where the plants produced their lively blossoms in the open border during the months of August and September.

DESCR. *Root* small, annual. *Stem* nearly simple, erect, rounded, glabrous, red. *Leaves* below opposite, and soon deciduous,

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* Probably from εν, *bene*, and χαρις, *gaudium*, from the lively appearance of the flowers.

deciduous, the rest alternate, all of them oblong-ovate, entire, shortly petiolate, glabrous; flowers sessile, from the axils of the upper leaves, and forming a sort of leafy corymb. *Calyx* with the upper part of the tube slender and crowning the germen; the *limb* four-cleft, the segments linear-lanceolate, often cohering by the apex, sometimes free and then reflexed, red. *Petals* four, unequally placed, cuneate, trifid, rose-coloured, with pale veins and deeper spots. *Stamens* four, erect: *Filaments* didynamous: *Anthers* ovate, slightly hairy, recurved at the point: *Style* rather longer than the stamens. *Stigma* two-lobed, white, fleshy, and velvety.

Fig. 1. Upper part of the Calyx, Stamens, and Style. 2. Petal. 3. Stamen: *magnified.*

3590.

W. Fitch del.

Pub. by S. Curtis, Glazenwood, Essex. July 1. 1837

CATASETUM LURIDUM. LURID CATASETUM.

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Class and Order.

GYNANDRIA MONANDRIA.

(Nat. Ord.—ORCHIDEÆ.)

Generic Character.

Perianthium sæpius globosum, nunc explanatum. *Sepala* et *petala* subæqualia. *Labellum* crassum, carnosum, nudum, ventricosum v. explanatum, fimbriatum ; sub apice saccatum obsolete trilobum. *Columna* erecta, aptera, libera, apice utrinque cirrhosa. *Anthera* subbilocularis, antice truncata. *Pollinia* 2, postice biloba v. sulcata, caudicula maxima nuda demum elastice contractili, glandula cartilaginea subquadrata.—Herbæ *terrestres v. epiphytæ, caulibus brevibus fusiformibus vestigiis foliorum vestitis.* Folia *basi vaginantia, plicata.* Scapi *radicales.* Flores *speciosi, racemosi, virides, nunc purpureo-maculati. Lindl.*

Specific Character and Synonyms.

CATASETUM *luridum ;* pseudobulbis oblongis compressis, foliis lato-lanceolatis, racemo brevi nutante, perianthio subgloboso, petalis sepalisque subrotundo-ellipticis arcte imbricatis, labello magno carnoso cucullato apice producto truncato subreflexo.

CATASETUM luridum. *Lind. Gen. et Sp. Orchid. p.* 156. *Bot. Reg. t.* 1667.

ANGULOA lurida. " *Link in Verhandl. des Vereins, &c.* 1. *p.* 289. *t.* 6."

The form of the flowers of this very distinct species of CATASETUM is no less remarkable than their powerful fragrance : a single raceme of flowers diffusing its odour throughout the whole of a large apartment, and which is too powerful if we smell closely at the blossoms themselves. It

It seems to have been first cultivated in Prussia, and is a native of Brazil. Our plant flowered in the stove of the Glasgow Botanic Garden in July, 1836.

Descr. *Pseudo-bulb* oblong, striated, somewhat compressed: sheathed below with large scales, above by the bases of five to six rather large, lanceolate *leaves*, which are a foot or more long and striated. *Scape* a foot high, arising from the base of a pseudo-bulb, and bearing, in our specimen, a short raceme of five, large, drooping, subglobose *flowers*. *Sepals* and *petals* nearly equal, roundish, oval, very concave, pale greenish, obscurely spotted, closely imbricated above and at the sides of the lip. *Lip* very large, singularly thick and fleshy, remarkably cucullate at the base, the mouth expanding and ending in a deflexed, truncated, or slightly two-lobed apex, the outside is pale dull green, faintly striated, within deeply tinged with yellow, striated with green, the sides elegantly dotted with rich brown. *Column* completely enclosed in the cucullate base of the lip, green, semicylindrical, with two purplish setæ, which rest on the inside of the lip. *Anther* depressed, acuminated, as is the top of the column.

Fig. 1. Section of the Lip, including the Column. 2. Pollen-masses: *magnified.*

Begonia platanifolia. Plane-leaved Begonia.

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Class and Order.

Monœcia Polyandria.

(Nat. Ord.—Begoniaceæ.)

Generic Character.

Masc. *Cal.* o. *Cor.* polypetala, petalis plerumque 4, inæqualibus.

Fœm. *Cal.* o. *Cor.* petalis 4—9, plerumque inæqualibus. *Styli* tres, bifidi. *Caps.* triquetra, alata, trilocularis, polysperma.

Specific Character and Synonym.

Begonia *platanifolia;* fruticosa; foliis subæqualiter reniformibus lobatis serrulato-denticulatis utrinque hispidis subtus purpurascentibus, lobis acutis, stipulis ovatis acutis rigidis demum marcescentibus.

Begonia platanifolia. *Schott.—Spreng. Syst. Veget. cur. post.* 407.

"We received this large and handsome species at Edinburgh from Berlin in 1834, but the plants did not grow vigorously, nor flower, till this year, when our increased accommodation at the Botanic Garden enabled us to give them greater stove heat.

Descr. *Stem* erect, robust, of rapid growth, (in our specimens from two and a half to five and a half feet high,) round, joints slightly swollen and marked with a ring, from whence the stipules fell, slightly spotted, glabrous, showing little disposition to develop branches unless the top be injured. *Leaves* (eight to ten inches across their greatest diameter) alternate, petiolate, reniform, nearly equal at the base,

base, lobed, hispid on both sides, dark green above, paler and becoming purplish below, especially on the ribs, which are strong and prominent ; *lobes* acute, contorted, serrulato-denticulate, and in the interstices between the teeth crenulate and ciliated ; *petioles* (two to three inches long) nearly round, slightly flattened above, erect ; *stipules* opposite, intrafoliaceous, ovate, acute, involute, herbaceous, rigid, marcescent. *Cymes* axillary, on peduncles as long as the petioles, dichotomous, always bearing a flower in the cleft, fully developed only after the leaf, from the axil of which it springs, drops off ; *branches* slightly hairy, spreading like a fan. *Male flowers* (there are no others on the only two specimens which have yet flowered with us) tetrapetalous, nearly white, very large (two inches across) ; *petals* very unequal, the larger rotundato-ovate, the smaller spathulato-linear. *Stamens* numerous, connected only at the base : *filament* slender : *connective* thick, and clavate : *anther-cells* small, on the outside of the connective, and towards its edges." *Graham.*

3592.

Aug. 1. 1835

Clarkia elegans. Californian Clarkia.

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Class and Order.

Octandria Monogynia.

(Nat. Ord.—Onagrariæ.)

Generic Character.

Cal. superus 4-partitus reflexus, sæpe laciniis cohærentibus. *Pet.* 4, unguiculata, æstivatione convoluta. *Stam.* alterna sterilia, antheris demum reflexis. *Stigma* 4-lobum, petaloideum. *Capsula* cylindracea, sulcata, 4-locularis, 4-valvis. *Semina* adscendentia nuda.

Specific Character and Synonyms.

Clarkia *elegans ;* foliis ovatis dentatis integrisque, caule glauco racemoso, petalis rhomboideis indivisis, stigmate pubescente, ovario piloso. *Lindl.*

Clarkia elegans. *" Dougl. in litt."* *Lindl. Bot. Reg. t.* 1575.

This is a third species of the Genus Clarkia which Mr. Douglas has detected on the Pacific side of North America: two of them he found in the Hudson's Bay Company's territories ; while the present is a native of California, and scarcely less worthy of a place in our flower borders, (where it is perfectly hardy,) than the well-known Clarkia *pulchella,* which Mr. Douglas was also the means of introducing to our collections through the Horticultural Society. It blossoms through the summer and autumn.

Descr. *Stem* erect, two to three feet high, with numerous erect, twiggy, rounded, and quite glabrous, reddish branches. *Leaves* ovate, on short petioles, glabrous, acute, more or less distinctly toothed, the upper ones gradually narrower and smaller, and taking the place of bracteas: so that the branches, for a great part of their length, are long, leafy,

leafy, distantly flowering *spikes*. *Bud* pendent : the *flower* stands out horizontally and is quite sessile. *Calyx* hairy, of four superior segments, which, however, as in ŒNOTHERA, split open for the whole length only on one side, the apices still continuing united, and the base forming a cup-shaped tube above the germen. *Petals* four, equal, spreading, somewhat rhomboidal, with a distinct claw, of a deep rose colour. *Stamens* eight, four longer and fertile : four sterile. *Anther* linear-oblong, red, fixed by the base. *Style* ascending, white : *Stigma* of four spreading lobes. *Capsule* immature, cylindrical, hispid, marked with eight furrows.

Fig. 1. Portion of the Calyx, with two Stamens (a fertile and a sterile one,) and the base of a Petal. 2. Immature Capsule : *magnified.*

3593.

Pub.by S. Curtis, Canewood, Essex. Aug. 1 1837

DELPHINIUM VIMINEUM. SLENDER UPRIGHT LARKSPUR.

Class and Order.

POLYANDRIA TRIGYNIA.

(Nat. Ord.—RANUNCULACEÆ.)

Generic Character.

Calyx deciduus petaloideus irregularis, sepalo nempe superiore in calcar deorsum producto. *Petala* 4; 2 superiora basi in appendicibus intra calcar contentis producta. *D C.*

Specific Character and Synonyms.

DELPHINIUM *vimineum;* pubescens, petiolis simplicibus, foliis planis tripartitis, segmentis cuneatis obtusis mucronulatis trilobis; summis linearibus indivisis tripartitisve, racemo laxo velutino, petalorum inferiorum limbo bifido, calcare recto calycis longitudine, ovariis sericeis. *Don.*
DELPHINIUM vimineum. *Don, in Sw. Brit. Fl. Gard. t.* 374.

Raised from seeds sent to the Glasgow Botanic Garden from Velasco, in Texas, by the late Mr. DRUMMOND. The same plant has been figured by Mr. DON, with the lower leaves smaller and broader: and I follow that Botanist in making it a new species; at the same time, I am far from certain that it is not a state of D. *azureum,* also found in Texas by Mr. DRUMMOND,) with less divided leaves than usual. It is a handsome hardy perennial, flowering in July and August.

DESCR. *Stem* slightly branched, two to three feet high, downy. *Leaves* all petiolate, tripartite, the segments linear-cuneate, entire or deeply and unequally bifid, upper ones the

the narrowest. *Racemes* lax, elongated, of several moderately-sized, bright azure flowers. *Rachis* and *pedicels* downy. *Sepals* oblong, acute, waved : *Spur* equal to them in length. *Upper petals* resembling the carina of a papilionaceous flower ; its claw tubular : *lower petals* with the limb spreading, purple, bifid, bearded with a yellow tuft of hairs. *Stamens* numerous.

Fig. 1. Flower, with the three lower Sepals removed, *nat. size.* 2. Lower Petal. 3. Upper Petals : *magnified.*

Pubd by S. Curtis, Clarewood, Essex. Aug. 1 1837.

LYCHNIS BUNGEANA. DR. BUNGE'S SCARLET CAMPION.

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Class and Order.

DECANDRIA PENTAGYNIA.

(Nat. Ord.—CARYOPHYLLEÆ.)

Generic Character.

Calyx tubulosus, 5-dentatus, nudus. *Petala* 5, unguiculata, fauce sæpius coronata. *Stamina* 10. *Styli* 5. *Capsula* 1—5-locularis, anthophoro longo vel nullo. *D C.*

Specific Name and Character.

LYCHNIS *Bungeana;* caule pubescenti, foliis ovato-lanceolatis ciliatis sessilibus, floribus axillaribus terminalibusque solitariis, calycibus pilosis profunde 10-angulatis, petalis (coccineis) obsolete coronatis angusto-cuneatis apice profunde inciso-multifidis.

LYCHNIS Bungeana. *Fisch. et Mey. Hort. Petrop.*

I regret that the history of this most beautiful plant is unknown to me, further than that it was received at the Glasgow Botanic Garden, (where it flowered in a warm open border in September, 1835,) from Mr. BOOTH of Hamburgh, under the name here adopted, and evidently intended to commemorate the services, rendered to Science and Botany in particular, of Dr. ALEXANDER BUNGE, who not only accompanied Professor LEDEBOUR in his celebrated travels in the Altai, but was attached to the Russian mission which went to Pekin, during which he collected many plants in the north of China. From the circumstance of that species of LYCHNIS, which is perhaps the most nearly allied to it, (L. *grandiflora,* JACQ. L. *coronata,* THUNB., and CURT. Bot. Mag. t. 233,) being a native of China and Japan, I had hoped to have found some account of the present among

among the plants that have been described of those two countries: but none appears, and I am therefore ignorant both of the region of which it is a native, and of the name of the Botanist to whom we are indebted for its discovery *.

Descr. Appearance and mode of growth extremely similar to that of L. *grandiflora;* but the stem is downy, and the leaves, though similar in form, are decidedly ciliated at the margin and on the nerve at the back. The flowers grow in a similar manner; but here the calyx is hairy and deeply sulcated, presenting ten sharp angles. The most striking difference, however, resides in the petals, which instead of being of a dull orange red, very broad and closely placed, and only fimbriated at the extremity, are of a bright crimson, distantly placed, narrow-cuneate, and deeply laciniated, so as to be irregularly multifid at the extremity.

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* Since the above was written, Dr. von Fischer informs me, that it was found by Dr. Bunge in a garden at Pekin: but its native country was not known.

Fig. 1. Calyx. 2. Petal:—*nat. size.*

EPIDENDRUM CORIACEUM. CORIACEOUS-LEAVED EPIDENDRUM.

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Class and Order.

GYNANDRIA MONANDRIA.

(Nat. Ord.—ORCHIDEÆ.)

Generic Character.

Sepala patentia, subæqualia. *Petala* sepalis æqualia, v. angustiora, rarius latiora, patentia v. reflexa. *Labellum* cum marginibus columnæ omnino v. parte connatum, limbo integro v. diviso, disco sæpius calloso, costato, v. tuberculato ; nunc in calcar productum ovario accretum et cuniculum formans. *Columna* elongata : clinandrio marginato, sæpe fimbriato. *Anthera* carnosa, 2—4-locularis. *Pollinia* 4, caudiculis totidem replicatis annexa.—Herbæ (Americanæ) *epiphytæ, caule nunc apice v. basi pseudo-bulboso, nunc elongato apice folioso.* Folia *carnosa, rarissime venis elevatis striata.* Flores *spicati, racemosi corymbosi, v. paniculati, terminales v. laterales. Lindl.*

Specific Name and Character.

EPIDENDRUM *coriaceum ;* pseudo-bulbis oblongo-lanceolatis compressis, foliis subbinis coriaceis acutis oblongo-lanceolatis, perianthii foliolis obovato-oblongis, petalis sepalis duplo angustioribus, labelli limbo rotundato-reflexo. *Parker MSS.*

This plant was sent from Demerara some years ago by CHARLES PARKER, Esq., to the Liverpool Botanic Garden, where Mr. HENRY SHEPHERD considered it a variety of E. *variegatum* (Bot. Mag. t. 3151.), and, I must confess, I was myself at first disposed to look upon it in the same light : but Mr. PARKER has, I think, clearly shown, that it is a distinct

distinct species. "The leaves," Mr. PARKER observes, "are invariably more coriaceous, more lanceolate, shorter, less striated, and acute, only one or two, the segments of the sepals more unequal (to say nothing of the difference in the spotting)." It will, indeed, undoubtedly rank next to E. *variegatum*.

Fig. 1. Flower. 2. Column and Lip :—*magnified.*

del.

Published by S. Curtis, Clarence wood, . . . Aug. 2 1837

HABRANTHUS ANDERSONI, *var.* ε, Texanus.
ANDERSON'S HABRANTHUS, Texas *var.*

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Class and Order.

HEXANDRIA MONOGYNIA.

(Nat. Ord.—AMARYLLIDEÆ.)

Generic Character.

Germen medio constrictum ; *tubus* æquales. *Filamenta* declinata, fasciculata, recurvata, quaterna longitudine. *Stylus* declinatus, recurvatus. *Semina* cumulata, complanata nigra.—Flos *sub sole patentior*. *Herb.*

Specific Character and Synonyms.

HABRANTHUS* *Andersoni ;* bulbo parvo obovato, foliis angustis 5—6-uncialibus, scapo unifloro subrubescente, 3—4-unciali. *Spatha* unciali apice diviso, pedunculo $1\frac{1}{4}$ unciali, germine subrubescente, corolla $1\frac{3}{8}$-unciali aurea v. cuprea striis externis et fundo subfusco-rubescente, tubo $\frac{1}{8}$-unciali membrana intus clauso, laciniis externis imbricantibus, filamentis internis longioribus ; summo brevissimo stylo longiore. *Herb.*

HABRANTHUS Andersoni. *Herb. in Bot. Reg. t.* 1345. *Herb. Amaryllid. p.* 167.

(γ.) *Texanus ;* perianthii laciniis rotundate obtusioribus. *Herb.*

Of this pretty HABRANTHUS, four varieties are noticed by Mr. HERBERT in the Bot. Reg., all, apparently, from Monte Video. The plant must have an extended range. I possess specimens from Buenos Ayres gathered by TWEEDIE, from

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* From αβρος, *delicate*, and ανθος, a *flower*.

from Araucania, S. Chili, by Mr. Reynolds; and Mr. Drummond sent the species from Texas (third Collection, n. 410, of the dried specimens) which Mr. Herbert has pronounced to be the same, differing slightly in the shape of the segments of the floral covering.

Bulbs sent home by Mr. Drummond have flowered both in Mr. Herbert's garden and in that of Glasgow; and from the latter collection, the drawings here given were made. The leaves did not appear on our flowering specimens.

Fig. 1. Inner view of an inner segment of the Perianth. 2. Stamens and Pistil. 3. Section of the Ovary.—*Magnified.*

Pub.by S. Curtis Clavemond Rosse Aug.1 1837

BIFRENARIA AURANTIACA. ORANGE-COLOURED BIFRENARIA.

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Class and Order.

GYNANDRIA MONANDRIA.

(Nat. Ord.—ORCHIDEÆ.)

Generic Character.

Sepala patula, libera, subæqualia ; lateralia cum basi producta columnæ adnata, vix basi obliqua. *Petala* sepalis duplo minora. *Labellum* cum pede mucronato columnæ articulatum, cucullatum, trilobum, medio callosum. *Columna* brevis, semiteres, mutica. *Anthera* mutica, subcristata. *Pollinia* 4, per paria incumbentia, caudiculis duabus distinctis materiei viscidæ rostelli adhærentibus, glandula (oblonga).—Epiphyta, *pseudo-bulbosa,* Maxillariæ *(Colacis) habitu. Lindl.*

Specific Character and Synonym.

BIFRENARIA * *aurantiaca ;* pseudo-bulbis subrotundis compressis diphyllis, foliis oblongis plicatis racemi erecti longitudine, petalis erectis, labelli lobis lateralibus semicordatis intermedio transverso ovali subundulato basi bicalloso, columna pubescente. *Lindl.*

BIFRENARIA aurantiaca. *Lindl. Bot. Reg. t.* 1875.

From the stove of the Glasgow Botanic Garden, having been received by Mr. MURRAY from Demerara, where the plant is a native.

DESCR. *Pseudo-bulbs* broadly ovate, compressed, spotted, bearing a single leaf at the extremity, which is oval-oblong, striated,

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* "So named in allusion to the double strap or frænum that connects the pollen-masses with their glands."

striated, acute, waved, spotted with purple beneath, tapering below into a short footstalk. *Scape* from the base of the bulb, a span high, bearing a raceme of deep yellow *flowers*, spotted with orange. *Sepals* and *petals* nearly equal, oblong, spreading, waved. *Lip* clawed, articulated upon the produced base of the column; *limb* three-lobed, with a callous excrescence at the base, two side lobes oblong, deflexed; intermediate one much larger, bifid. *Column* semicylindrical. *Anther* helmet-shaped, bidentate at the back. *Pollen-masses* two, two-lobed, stalked: the stalks adhering to one common gland.

Fig. 1. Side view of a Flower. 2. Column. 3. Anther-case. 4, 5. Pollen-masses. 6. Lip:—*magnified.*

W. Fitch. del. Drib. bv · Curtis Glazenw.r. Essex Sept. 1 1837

Cereus Ackermanni. Ackermann's Mexican Cereus.

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Class and Order.

Icosandria Monogynia.

(Nat. Ord.—Cacteæ.)

Generic Character.

Sepala numerosissima imbricata basi ovario adnata, in tubum elongatum concreta, exteriora breviora calycinalia, *media* longiora colorata, *intima* petaliformia. *Stam.* numerosissima cum tubo concreta. *Stylus* filiformis apice multifidus. *Bacca* sepalorum reliquiis areolata tuberculosa aut squamata. *Cotyledones* nullæ ?—Frutices *carnosi elongati axi ligneo interne medullifero donati, angulis verticalibus spinarum fasciculos gerentibus regulariter sulcati.* Anguli seu alæ *nunc plurimæ, nunc paucissimæ, rarius duæ tantum et tunc rami compresso-alati.* Flores *ampli e spinarum fasciculis aut crenis angulorum orti.* *D C.*

Specific Character and Synonyms.

Cereus (Phyllanthus) *Ackermanni;* ramis compressissimo-alatis foliiformibus, sinuato-lobatis, floribus maximis coccineis ad crenas ramorum sessilibus, tubo petalis acutissimis ter breviore, antheris stigmatibusque roseis.

Cereus Ackermanni. *Lindl. Bot. Reg. t.* 1331.

Cereus oxypetalus? *De Cand. Prodr. v. 3. p.* 470. *Ejusd. Rev. de la fam. des Cact. p.* 60. *t.* 14.

Mr. Murray received this truly splendid plant from Mr. Hitchin, with the remark, that it was raised from seeds which came direct from Mexico: thus confirming the statement of Mr. Tate, with regard to its native country (as given in the Bot. Register) which had been called in question. An opinion seemed to prevail, that it was a seedling hybrid:

hybrid: and, indeed, it is an extraordinary circumstance, that a phyllanthoid *Cactus* should bear flowers as large, and almost exactly like those of CEREUS *speciosissimus*. I have referred to the present species, though, certainly, not without hesitation, the CEREUS *oxypetalus* of DE CANDOLLE above quoted, and those who will be at the trouble of comparing the two will find many striking points of resemblance; added to which they are both from the same country. Almost the only difference is in the flowers of C. *oxypetalus* being less spreading, "reddish-brown on the outside, and white within." But when we consider that Professor DE CANDOLLE's knowledge of the plant is solely derived from a Mexican drawing, we may be allowed to suppose that there probably exists some variation in the plant itself, or that the artist was not a faithful colourist. The sharpness of the petals, especially in the state of the bud, is very remarkable in both. With us it bears its magnificent flowers in June.

DESCR. *Stems* a foot and a half high, rounded at the base, and marked with little downy prominences, bearing a few short bristles; the *branches* singularly dilated and flattened, so as to be two inches to two inches and a half broad, and leaf-like, sinuato-lobed at the margin, destitute of prickles as of fascicles of hairs: in the centre is a *costa* projecting on both sides, and some oblique and broad lateral nerves. From a sinus of these branches, and generally from near the extremity, the *flower-bud* arises, which in a few days enlarges into the splendid blossom here represented. The *tube* is about two inches long, green, tinged with brown, bearing a few ovate, lax, membranous scales, soon passing into *petals*, of which the greater number are about four inches long, oblong, very acute, slightly waved, of a rich scarlet colour and satiny lustre. *Stamens* numerous, declined, shorter than the petals: *Filaments* slender, greenish white at the base, the rest scarlet: *Anther* and *pollen* rose-colour. *Style* longer than the stamens: *Stigma* of seven linear, spreading rays.

BLUMENBACHIA MULTIFIDA. MULTIFID-LEAVED BLUMENBACHIA.

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Class and Order.

POLYADELPHIA POLYANDRIA.

(Nat. Ord.—LOASEÆ.)

Generic Character.

Calycis tubus spiraliter striatus ovario adhærens, *limbus* 5-partitus, marcescens. *Pet.* 5, compresso-cucullata. *Squamæ* 5 petalis alternæ, singulæ filamenta 2 sterilia includentes. *Stam.* ∞, in fasciculos 5 petalos oppositos disposita. *Stylus* 1, obtusus. *Fructus* fungosus in partes 10 basi spirales dehiscens, 5 alternæ tenuiores (dissepimenta), 5 crassiores (valvæ). *Semina* plure parieti dissepimentorum versus axim adfixa, epidermida indusiata rugosa.—Herbæ *ramosæ scandentes piloso-prurientes, habitu et inflorescentia* Loaseæ, *sed fructus structura distinctæ.* Pedunculi *axillares, uniflori, bracteati.* Flores *albi.* *D C.*

Specific Name and Character.

BLUMENBACHIA *multifida ;* foliis palmatis lobis bipinnatifidis, floribus bibracteatis, petalis hispidis.

This new BLUMENBACHIA was first detected by the late Dr. GILLIES at Buenos Ayres, and I noticed his specimens, preserved in my Herbarium under the description of BL. *insignis,* at t. 2865 of this work. Since that discovery Mr. TWEEDIE has gathered the same plant in the Pampas of Buenos Ayres, and seeds from him have been raised in the Glasgow Botanic Garden. The plants flourish extremely well in the open border, and preserve all the characters of my native dried ones, so that I can have little hesitation in considering the species perfectly distinct from

BL.

Bl. *insignis*. It is the much stronger growing plant of the two, more compact, more hispid with strings: the leaves are much larger, five-partite in a palmated manner, the middle lobe the longest, but all of them bipinnatifid and wrinkled upon the surface. The peduncles are longer, the bracteas constantly two at the base of each germen, the petals are hispid; in other respects the two plants are so closely allied that it is needless to repeat the description already given at our tab. 2865.

Blumenbachia *insignis* may be thus characterized: gracilis, foliis quinquelobo-palmatis lobis inciso-pinnatifidis, floribus unibracteatis, petalis pubescentibus.

W. Fitch del.

Pub. by S. Curtis Glazenwood Essex Sept.1. 1837

Swan Sc

LOBELIA CAVANILLESII. CAVANILLES' LOBELIA.

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Class and Order.

PENTANDRIA MONOGYNIA.

(Nat. Ord.—CAMPANULACEÆ.)

Generic Character.

Cor. tubo hinc fisso (raro integro); *limbo* 5-partito. *Antheræ* connatæ. *Stigma* bilobum (nunc indivisum). *Capsula* bilocularis (raro 3-loc.) apice supero bivalvi.—Herbæ *vel* suffrutices, *pleræque lactescentes.* Folia *alterna, integra v. laciniata, raro fistulosa.* Flores *racemosi, terminales v. axillares, solitarii, pedicellis bibracteatis v. nudis.* Antheræ *sæpius barbatæ. Br.*

Specific Character and Synonyms.

LOBELIA *Cavanillesii;* erecta herbacea glabra, foliis sparsis lanceolato-acuminatis serrulatis sessilibus, pedunculis axillaribus unifloris gracilibus folio subbrevioribus, corolla calycis basi obtusa laciniis erectis tubulosa superne fissa bilabiata, laciniis 2 superioribus liberis inferioribus 3 coadunatis, antheris hirsutissimis.

LOBELIA Cavanillesii. *Ræm. et Sch. Syst. Veget. v.* 5. *p.* 43. *Spreng. Syst. Veget. v.* 1. *p.* 713.

LOBELIA persicifolia. *Cav. Ic. v.* 6. *p.* 12. *t.* 518 (non Lam.).

A very graceful and desirable stove plant, a native of New Spain, according to CAVANILLES, near Acámbaro, "frequently growing with MARTINIA *annua* and BARTRAMIA, and more abundantly with HELIANTHUS *giganteus, multiflorus, tuberosus,* and *angustifolius,* which occupy so large a space in the borders of fields, that the corn growing amongst them

them is sometimes wholly concealed from the view of the travellers." We are indebted for the plant in the Glasgow Botanic Garden to Professor LEHMANN of Hamburgh. Its flowering season is August and September. Its nearest affinity is with L. *Kraussii*, Grah. in Bot. Mag. t. 3012, from which the calyx, corolla, and stamens are considerably different.

DESCR. In our plant the *stem* is nearly three feet high, erect, scarcely branched, rounded, dark purple, clothed with scattered leaves, spreading in all directions and nearly horizontally, four to six inches long, sessile, lanceolate, glabrous, acuminated, acutely serrated for their whole length. *Peduncles* solitary, axillary, slender, single-flowered, generally shorter than the leaves, curved gracefully downwards, but bearing the flower horizontally. *Calyx* with a short wrinkled tube, very obtuse at the base; *segments* broadly lanceolate, erect, about as long as the tube, glabrous as well as the *corolla*, which is nearly two inches long, orange-red, tubular, but slit longitudinally above for the whole length, (in which slit the staminal tube is lodged,) two-lipped: *upper lip* of two linear, reflexed segments; *lower lip* of three narrow segments, which are combined and only three-toothed at the apex. *Stamens* united for their whole length into a long red tube: *Anthers* combined, very hairy: *Stigma* two-lobed.

Fig. 1. Flower: *nat. size.*

W. Finch del.

Pub by [illegible] Curtis Glazenwood Essex Sept 1 1835

MONACHANTHUS DISCOLOR: β. viridiflorus.

DINGY MONK-FLOWER: Green-flowered *var.*

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Class and Order.

GYNANDRIA MONANDRIA.

(Nat. Ord.—ORCHIDEÆ.)

Generic Character.

Perianthium explanatum. *Sepala* et petala æqualia, deorsum versa. *Labellum* posticum, carnosum, indivisum, ventricosum, sepalis multo majus. *Columna* brevis, crassa, mutica. *Anthera* et *pollinia* Cataseti.—*Epiphytæ* Cataseti *habitu. Lindl.*

Specific Character and Synonym.

MONACHANTHUS* *discolor;* racemo laxo multifloro, labello hemisphærico marginibus planis medio fimbriatis. *Lindl. Bot. Reg. t.* 1735.

(β.) *viridiflora;* floribus viridibus. (Tab. Nostr. 3601.)

(γ.) *Bushnani;* floribus viridi-fulvis, labello minus fimbriato. (Tab. Nostr. 3601. fig. A.)

Like so many of the epiphytal Orchideæ the present species is probably liable to considerable variation. Three plants of it, received at different times from Demerara, where it is a native, have all proved different in colour and somewhat in the shape of the flowers. 1. The original M. *discolor* of Dr. LINDLEY, with the lip and sepals dingy green, the petals purple. 2. The plant here figured, received at the Glasgow Botanic Garden, amongst a splendid set of other EPIPHYTES, by favour of —— INVERARITY, Esq.; this

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* From Μοναξ, a *monk*, and ανθος, a *flower*, so called from the cowl-like labellum of the original species.

this has the whole flower of nearly the same uniform pale green;—and 3, A noble raceme sent to us by C. Parker, Esq. of Liverpool, imported from Demerara also: this approaches nearer in colour to Dr. Lindley's plant, but the colour is much more inclining to yellow or buff, and the margin of the lip is less distinct and less fimbriated. All are eminently singular and deserving of cultivation. Our β. and γ. flowered in August, 1836. The following description applies to the second of these varieties.

Descr. *Pseudo-bulb* five or six inches long in the old state when destitute of leaves. In the flowering state of the plant it is scarcely more than two to three inches long, sheathed by the broad bases of the leaves, of which the outer ones are short, the rest a foot or more in length, lanceolate, striated, plicate, dark green above, paler and somewhat glaucous beneath. *Scape* a foot and a half long, arising from the base of the young pseudo-bulb, pale green, bearing a lax *raceme* of seven to nine *flowers*, of a yellowish-green colour, nearly destitute of fragrance. *Sepals* lanceolate, closely reflexed. *Petals* straight, having the direction of the column, oblong, their margins revolute. *Lip* large, fleshy, ventricose, yellow and downy within, the sides much reflexed and beautifully fringed, somewhat three-lobed at the apex, the middle lobe not longer than the side ones, very obscurely toothed. *Column* short, standing forward, quite exposed, the sides above thickened and produced, thus forming on each side a sort of tooth, directed downwards (corresponding with the setæ in Catasetum) under the singularly projecting margin at the base of the stigma. *Anther* hemisphærical. *Pollen-masses* two, as in Catasetum, furrowed at the back, fixed to a large, broad, and highly elastic membrane, which, on separating from the column, has its sides singularly reflexed; this membrane, indeed, often springs up from the column before the falling of the lid, and soon turns black, giving the appearance of a black beak to the base of the anther, as seen in the lower flower of our figure.

Fig. 1. Front view of the Column. 2. Pollen-masses: *magnified*. A. Flower from Mr. Parker's plant of var. γ: *nat. size*.

W Fitch del.

Pub. by S. Curtis Glazenwood Essex Sept. 1 1837.

Swan Sc.

GESNERIA LINDLEYI. DR. LINDLEY'S GESNERIA.

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Class and Order.

DIDYNAMIA ANGIOSPERMIA.

(Nat. Ord.—GESNERIACEÆ.)

Generic Character.

Cal. 5-partitus (plerumque germini adnatus). *Cor.* tubuloso-campanulata, limbo bilabiato ; labio superiore bi- inferiore trifido. *Stigma* bilobum. *Capsula* bilocularis, 2-valvis, placentis parietalibus.

Specific Character and Synonym.

GESNERIA *Lindleyi ;* elata, pubescenti-hirsuta subscabra, foliis petiolatis oppositis ovato-oblongis rugosis crenatis, verticillis sursum aphyllis in racemum elongatum compositis, corollæ limbo obliquo lobo superiore majori, glandulis hypogynis 5.

GESNERIA rutila : *var.* atrosanguinea. *Lindl. Bot. Reg. t.* 1279.

This is a very striking plant, handsome in its foliage and in its flowers, which latter, though each is but of few days' duration, are succeeded by others in the same whorl for a considerable length of time. Professor LINDLEY was of opinion that it is merely a variety of his GESNERIA *rutila,* (Bot. Reg. t. 1158.) ; but a comparison of his two figures will, as it appears to me, show them to be different. The original G. *rutila* has axillary solitary flowers of a different colour and having a wider mouth ; and the hypogynous glands are only two, whereas in G. *Lindleyi* they are constantly five. It is a native of Brazil, and blossoms with us in the stove during the months of June and July.

DESCR.

Descr. *Root* a large, somewhat globose, depressed *tuber*. *Stem* erect, four to five feet high, rounded, purple, hairy, below marked with darker streaks; *branches* opposite, short, not bearing flowers. *Leaves* opposite, ovato-oblong, obtuse, wrinkled, crenate, downy and somewhat scabrous: *petiole* varying in length in the lower part of the plant, nearly half as long as the leaf, channelled above. The upper part of the stem becomes suddenly bare of leaves, and bears numerous pseudo-verticils of flowers, thus constituting a *raceme*, one or two feet in length. *Peduncles*, generally in threes, from three lines to an inch in length. *Calyx* inflated, five-angled, deeply cut into five, acute, triangular segments, scabrous. *Corolla* bright scarlet: *tube* slightly curved and a little inflated near the middle, remarkably dilated and inflated at the base. The *limb* oblique, five-lobed, within spotted with yellow, upper lobe much broader than the rest, emarginate. *Stamens* four: *Anthers* meeting in a cross-shaped manner. *Germen* oblong, with five yellow glands, of which two larger ones are combined. *Style* rather longer than the flower.

Fig. 1. Calyx and Pistil. 2. Corolla. 3. Pistil with hypogynous Glands: *magnified.*

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ONCIDIUM LURIDUM. DINGY-FLOWERED ONCIDIUM.

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Class and Order.

GYNANDRIA MONANDRIA.

(Nat. Ord.—ORCHIDEÆ.)

Generic Character.

Perianthium explanatum. *Sepala* sæpius undulata: lateralibus nunc sub labello connatis. *Petala* conformia. *Labellum* maximum, ecalcaratum, cum columna continuum, varie lobatum, basi tuberculatum vel cristatum. *Columna* libera, semiteres, apice utrinque alata. *Anthera* semibilocularis, rostello nunc abbreviato, nunc elongato rostrato. *Pollinia* 2, postice sulcata, *caudicula* plana, *glandula* oblonga.—Herbæ *epiphytæ, nunc pseudo-bulbosæ.* Folia *coriacea.* Scapi *paniculati, vaginati, rarius simplices.* Flores *speciosi, lutei, sæpius maculati, raro albi. Lindl.*

Specific Character and Synonyms.

ONCIDIUM *luridum;* pseudo-bulbis nullis, foliis lanceolatis rigidis carnosis carinatis solitariis, sepalis liberis petalisque subrotundo-ovalibus unguiculatis undulatis, labelli lobis lateralibus minimis obtusis lateribus revolutis, intermedio amplo reniformi-emarginato, crista trilamellata.

ONCIDIUM luridum. *Lindl. Bot. Reg. t.* 727. *Gen. et Sp. Orchid. p.* 201.
ONCIDIUM cuneatum. *Lindl. Coll. Bot. p.* 27.
EPIDENDRUM guttatum. *Linn. Sp. Pl. p.* 1351.
CYMBIDIUM guttatum. *Willd. Sp. Pl. v.* 4. *p.* 102.

This species varies considerably as to the height and branching of the scape, the depth of colour in its flowers, and the size of these. We had three plants very considerably

ably differing in these respects, from Mr. Cross; to whom we owe a very excellent collection of parasitical Orchideæ, which he brought from Trinidad in 1835. All the varieties flowered freely in the stove of the Royal Botanic Garden, Edinburgh, in April, 1837, and continued for several weeks in great perfection.

Descr. *Root* of strong, cylindrical, waved fibres. *Pseudobulbs* wanting. *Leaves* (one foot four inches long, three inches and a half broad) solitary, lanceolate, very thick and rigid, dull green, having small, brown, circular spots on both sides, folded along the middle, keeled behind. *Scape* (three feet high), slender, brown, with numerous small, greenish-yellow oblong spots, panicled or racemose, with small alternate, subacute, membranous sheaths. *Flowers* large, yellow, with large, brown, confluent spots, which cover nearly the whole upper surface, but are somewhat less continuous behind. *Sepals* all distinct, unguiculate, undulate, crenulate, warted on the back, the upper rotundato-rhomboid, the lower spathulato-oblong and slightly cohering near the insertion of their claws only. *Petals* resembling the upper sepal, but larger, and without warts behind. *Lip* three-lobed; the side-lobes small, blunt, revolute in their edges, the central lobe large, kidney-shaped, emarginate, rather less undulate than the other parts of the perianth, and like them crenulate, without warts behind; crest of three longitudinal, erect lamellæ, of which those at the sides are interrupted in the middle, that in the centre is nearly entire, becoming broader downwards. *Column* about as long as the claw of the upper sepal, colourless, with two large kidney-shaped wings, emarginate at the upper edge, pink-coloured in front, and two smaller, rounded, entire, internal wings. *Anther-case* white, helmet-shaped, crested, emarginate at its anterior edge and sides, minutely pubescent. *Pollen-masses* pear-shaped, furrowed behind, placed on the upper edge of a white membrane, which has its origin from the anterior border of the subrotund gland, and covers the upper surface of this. *Graham.*

Fig. 1. Column and Lip: *magnified.*

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Tilsh del.

Pub by S. Curtis Glazenwood Essex Sept 1 1837

Swan St

LOBELIA SIPHILITICA; *hybrida.* Hybrid *var.* of the BLUE AMERICAN LOBELIA.

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W. Fitch del.t Pub.d by S. Curtis Glazenwood House Oct.r 2. 1837 Sw.n sc.

ERIA STELLATA. STAR-FLOWERED ERIA.

Class and Order.

GYNANDRIA MONOGYNIA.

(Nat. Ord.—ORCHIDEÆ.)

Generic Character.

Sepala semipatentia v. clausa, inæqualia, extus lanata v. glabra, lateralibus basi valde obliquis cum pede columnæ connatis calcar æmulantibus. *Petala* sepalo superiori æqualia v. minora. *Labellum* cum basi producta columnæ articulatum, trilobum, raro subintegrum, cucullatum, disco calloso, v. cristato. *Columna* basi longe producta. *Anthera* terminalis, bilocularis, loculis obsolete 4-locellatis. *Pollinia* 8, nunc omnino libera, nunc materie elastica glandulam mentiente cohærentia.—Herbæ *in arboribus crescentes; caulibus carnosis, vaginatis, cicatricibus foliorum notatis.* Folia *sæpius plicata.* Racemi *simplices erecti, bracteis sæpius dilatatis.* Flores *nunc conspicui.* *Lindl.*

Specific Character and Synonyms.

ERIA* *stellata;* foliis lanceolatis carnosis 5-costatis, sepalis pubescentibus petalisque lineari-lanceolatis acuminatis labelli tricostati lobis lateralibus obtusis intermedio acuminato, scapo elongato radicali multifloro ovarioque pube ferruginea lanatis. *Lindl.*

ERIA stellata. *Lindl. in Bot. Reg. t.* 904. *Gen. et Sp. Orchid. p.* 67.

OCTOMERIA stellata. *Spreng. Syst. Veget. v.* 4. *p.* 310.

DENDROBIUM Javanicum. *Swartz in Act. Holm.* 1800. *p.* 247 ? *Willd. Sp. Pl. v.* 4. *p.* 137 ?

The

* From εριον, *wool*, on account of the woolly, or downy, nature of the flowers.

The noble specimen here figured blossomed in the Orchideous stove of the Glasgow Botanic Garden in April, 1837. It is considered to be a native of Java, but when and by whom introduced is not known. It was first described in this country from plants which blossomed in Mrs. Cattley's collection. The long, curved spike of copious, fragrant, stellated flowers, and the creeping habit with ample and graceful foliage, combine to render this a most desirable plant for our stoves.

Descr. *Stems* creeping, branched, covered with sheathing scales, and bearing what may be considered *pseudo-bulbs*, clothed with still larger scales, and each of these having two broadly lanceolate leaves, marked with five longitudinal ribs. *Scape* from the base of the leaves, long, curved, clothed with ferruginous down (as well as the germens), and bearing copious *flowers* for nearly its whole length. *Bracteas* ovato-lanceolate, soon withering. *Perianth* pale yellow-green. *Sepals* (which are downy on the outside) and *petals* nearly equal, linear-lanceolate, patent, two of the former uniting below, and forming a conspicuous, blunt spur at the base of the *labellum*. *Lip* nearly parallel with the column, lanceolate, three-lobed, the disk with five elevated, crenated lines, the side lobes obtuse, incurved, marked with red lines, the middle lobe much acuminated and patent. *Column* extended below. *Anther-case* hemispherical. *Pollen-masses* four.

Fig. 1. Column, Anther, and Lip. 2. Anther-case. 3. Pollen-masses :— *Magnified.*

STENACTIS SPECIOSA. SHOWY STENACTIS.

Class and Order.

POLYGAMIA SUPERFLUA.

(Nat. Ord.—COMPOSITÆ.)

Generic Character.

Capitulum radiatum, radio fæmineo sæpe bi- vel pluriseriali, ligulis angustis linearibus discoque hermaphrodito fertilibus; *involucri* subhemisphærici foliolis 2—3-serialibus, imbricatis, subæqualibus, angustis, subfoliaceis, rigidulis. *Receptaculum* planum, v. convexum verruculoso-punctatum. *Pappus* duplex: *exterior* brevis paleaceus, paleolis angustis; *int.* uniserialis, radiis distantibus, subæqualibus, filiformibus, serrulato-scabris, deciduis. *Nees.*

Specific Character and Synonym.

STENACTIS* *speciosa;* caule erecto apice corymbo multifloro glabro, foliis ciliatis acutis integerrimis, radicalibus spathulatis caulinis ovato-lanceolatis subamplexicaulibus, radio involucro duplo longiori.

STENACTIS speciosa. *Lindl. in Bot. Reg. t.* 1577.

STENACTIS is a Genus of plants allied in general habit to ASTER, and in the numerous narrow florets of the ray to ERIGERON; differing from both in the peculiar nature of the pappus. Most of the species have been referred to one or other of these genera. The only ones described by NEES are S. *annua* (ASTER, L., ERIGERON of various authors) and S. *verna,* (ASTER, L., ERIGERON *nudicaule,* MICH.,) both natives of North America: S. *bellidioides,* (ASTER, DON,) an inhabitant

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* I presume from στηνος, *narrow,* and αξ, ακτος, *a ray;* in consequence of the narrow florets of the ray.

inhabitant of Nepal, and S. *glauca* of Buenos Ayres. The present plant, a native of California, discovered by Mr. Douglas, and first cultivated and distributed by the Horticultural Society, is, I have no doubt, correctly referred by Professor Lindley to the same Genus. It flowers, like the Asters, in the latter end of the summer and in the autumn, and is equally with the Aster entitled to the appellation of *Michaelmas Daisy*.

Descr. *Root* perennial. *Stem* herbaceous, a foot and a half high, rounded, striated, glabrous, erect, branched upwards in a corymbose manner. *Leaves* sessile, oblong, acute, entire, ciliated at the margin, the rest glabrous, dark green, marked with nerves, which commence near the base and run upwards, nearly parallel with the midrib : the radical leaves spathulate, tapering into long, slender stalks. *Flowers* corymbose. *Peduncles* single-flowered. *Flowers* (or *capitula*) large, handsome. *Involucre* hemispherical, of numerous imbricated, narrow, linear-subulate, downy scales. *Florets of the ray* purple, numerous, of several series, exceedingly narrow. Those of the disk yellow.

W. Fitch del.t Pub by S Curtis Glazenwood Essex Oct.r 1 1837. Swan Sc

Chorizema Henchmanni. Mr. Henchman's Chorizema.

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Class and Order.

Decandria Monogynia.

(Nat. Ord.—Leguminosæ.)

Generic Character.

Cal. semiquinquefidus bilabiatus, labio superiore bifido, inferiore 3-partito. *Cor.* carina ventricosa, alis breviore. *Stylus* brevis uncinatus. *Stigma* obliquum, obtusum. *Legumen* ventricosum uniloculare polyspermum sessile aut submen sessile.—Suffrutices Australasici. Folia *alterna simplicia sinuato-dentata aut integra. D C.*

Specific Character and Synonyms.

Chorizema* *Henchmanni;* pubescenti-hirsutum, foliis ternatis acicularibus, racemis elongatis foliosis, calycibus villosissimis.

Chorizema Henchmanni. *Br. MSS.—Lindl. Bot. Reg. t.* 986. *Lodd. Bot. Cab. t.* 1233.

The plant from which our drawing is copied of Chorizema *Henchmanni* is between four and five feet high, clothed almost from the base to the extremity with numerous branches, and every branch loaded with red blossoms, having a yellow eye, in a similar manner to what is here represented. If the red were of a brighter tint, and the foliage more copious and less sombre, it would be the most

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* From χορος, a *dance*, and ζεμα, a *drink;* so named by Labillardiére from the joyous circumstance of his party having discovered a supply of fresh water, when much tantalized by thirst on the south-west coast of New Holland, at the time of his finding the first species of this beautiful Genus.

most lovely of plants. The species is one of the late Mr. Baxter's numerous discoveries in the South-west coast of New Holland, and was named *Henchmanni* by Dr. Brown, in compliment to Francis Henchman, Esq., through whom it was introduced to the Clapton Nursery. In the greenhouse of the Glasgow Botanic Garden the plant blossoms in April and May, and the flowers continue in perfection a long time.

Descr. An upright *shrub*, with numerous and downy branches. *Leaves* small, ternate, spreading, circular, dark green above and nearly glabrous, beneath paler, slightly hairy, the margins revolute. *Flowers* solitary, or two or three together from the axils of numerous leaves, so as to constitute, a dense elongated raceme. *Pedicel* shorter than the flower. *Calyx* very hairy, tubular, two-lipped, *upper lip* bifid; *under one* trifid:—at the base of the calyx is a small subulate bractea on each side. *Flowers* brick-red. *Standard* orbiculari-reniform, with a yellow eye. *Wings* oblong, with a slight twist, the extremity bent down. *Keel* very acute. *Stamens* ten, free, filaments broader at the base, nearly of equal length. *Germen* elongated, silky: *Style* short: *Stigma* small, capitate.

Fig. 1. Standard. 2. Flower from which the Standard is removed. 3. Calyx. 4. A wing. 5. The Keel. 6. Stamen. 7. Pistil:—*magnified.*

W Fitch del.

Pub by S. Curtis Glazenwood Essex Oct.1 1837.

Swan Sc

APORUM ANCEPS. TWO-EDGED APORUM.

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Class and Order.

GYNANDRIA MONANDRIA.

(Nat. Ord.—ORCHIDEÆ.)

Generic Character.

Sepala carnosa erecta, lateralibus majoribus obliquis cum basi producta columnæ connatis. *Petala* sepalo supremo minora. *Labellum* cum pede columnæ articulatum, posticum, indivisum v. trilobum : limbo cristato calloso v. nudo. *Columna* semiteres, basi longe producta. *Anthera* sessilis, bilocularis, nunc apice membranaceo. *Pollinia* 4, per paria collateralia.—Herbæ *epiphytæ, caulescentes.* Folia *disticha, equitantia, ancipitia.* Flores *subsolitarii, e paleis membranaceis erumpentes, sæpius herbacei coloris. Lindl.*

Specific Character and Synonyms.

APORUM *anceps ;* foliis scalpelliformibus carnosis acutis, floribus solitariis geminisve, sepalis carnosis : lateralibus ovatis patentibus supremo petalisque multo majoribus, labello postico unguiculato ecalloso inappendiculato cuneato emarginato crenulato, caulibus, compressis. *Lindl.*

APORUM anceps. *Lindl. in Wall. Cat. n.* 2020. *Gen. et Sp. Orchid. p.* 71.

DENDROBIUM anceps. *Swartz, Act. Holm.* 1800. *p.* 26. *Lindl. Bot. Reg. t.* 1239. *Spreng. Syst. Veget. v.* 3. *p.* 738.

A very remarkable plant : agreeing indeed with DENDROBIUM in all that is essential, as concerns the fructification : but differing exceedingly, as Professor LINDLEY well observes, in the distichous, equitant leaves. Its native country, we learn from the same author, is the estuaries of the rivers

rivers of Bengal and Pegu, where it is found on the trunks of trees in swampy low situations; and whence it was introduced by Dr. Wallich to the gardens of the Horticultural Society. In the Stove of the Glasgow Botanic Garden its blossoming season is the month of May. We have received fine specimens, also blossoming at the same season, from the Edinburgh Botanic Garden.

Descr. *Stems*, several from the same root, six to eight inches long, pendulous on its native trees, compressed, jointed, leafy throughout the whole length. *Leaves*, ovato-lanceolate, compressed, fleshy, very acute, distichous, sheathing at the base. *Flowers* arising from the sheaths, solitary, having two bracteas at the base, at first greenish, then pale, almost lemon-yellow. *Sepals* three, combined from above the middle downwards with the back of the column, and running down into an obtuse spur; the middle sepal much the smallest; two lateral petals, very small, ovate, close pressed against the calyx. *Lip* erect, articulated to the base of the column, cuneate, three-lobed; middle lobe the largest, its apex reflexed and crisped at the margin.

Fig. 1. Back view of a Flower. 2. Front view of ditto :—*magnified.*

W. Fitch del.t

Pub. by S. Curtis Glazenwood Essex Oct.r 1. 1837

Swan Sc.

Lobelia erinoides. Erinus-like Lobelia.

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Class and Order.

Pentandria Monogynia.

(Nat. Ord.—Lobeliaceæ.)

Generic Character.

Cor. tubo hinc fisso (raro integro); *limbo* 5-partito. *Antheræ* connatæ. *Stigma* bilobum (nunc indivisum). *Capsula* bilocularis (raro 3-loc.) apice supero bivalvi.—Herbæ *vel* Suffrutices, *pleræque lactescentes.* Folia *alterna, integra v. laciniata, raro fistulosa.* Flores *racemosi, terminales v. axillares, solitarii, pedicellis bibracteatis v. nudis.* Antheræ *sæpius barbatæ. Br.*

Specific Character and Synonyms.

Lobelia *erinoides;* annua glabra, caulibus filiformibus simplicibus decumbentibus flexuosis, foliis dentatis radicalibus inferioribus spathulatis petiolatis summis linearibus integerrimis, floribus solitariis axillaribus folio brevioribus, corollæ tubo campanulato limbo obliquo subregulari lobis ovatis acutis patentibus.

Lobelia erinoides. *Linn. Mant. p.* 291. *Hort. Kew. ed.* 2. *v.* 1. *p.* 361. *Rœm. et Sch. Syst. Veget. v.* 5. *p.* 62. *Thunb. Fl. Cap. ed.* 2. *p.* 180. *Spreng. Syst. Veget. v.* 1. *p.* 715*?*

Campanula *minor* Afrinana Erini facie caulibus procumbentibus. *Herm. Ludg.* 108. *t.* 109.

A very pretty greenhouse annual, introduced from the Cape of Good Hope so long ago as the year 1759: but it was probably soon lost, and I do not recollect having myself seen it any where except in the Glasgow Botanic Garden, where seeds were received from the Baron Ludwig in 1835. Our

Our specimens displayed their small but most delicately-marked flowers in July and August. It is very likely that in England at least the species might be raised in the open border.

Descr. *Root* annual (biennial in Hort. Kew.), throwing out, from its crown, several spreading, decumbent, flexuose, filiform, simple *branches*, three to four or five inches long. *Leaves* glabrous, most of them petiolate, those from the root (which are much the largest) and those from the lower part of the stem spathulate, toothed, upper ones linear, sessile, (or nearly so,) entire. *Flowers* from the axils of the upper leaves, and shorter than they, solitary, pedunculate. *Calyx* of five, erect, linear-subulate segments. *Corolla* purplish-white, with a campanulate, entire *tube*, the *limb* slightly oblique, with five spreading, ovate acute, nearly equal lobes: the mouth is beautifully and regularly marked with deep purple, and two yellow spots. *Combined anthers* bearing two white awns. *Germen* almost cylindrical, a little tapering below, and very obscurely downy.

Fig. 1. Front view of a Flower. 2. Side view of ditto :—*Magnified.*

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W. Fitch del.

Pub. by S. Curtis Glazenwood Essex Oct.r 1.1837

ANTHERICUM GLAUCUM. GLAUCOUS-LEAVED ANTHERICUM.

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Class and Order.

HEXANDRIA MONOGYNIA.

(Nat. Ord.—ASPHODELEÆ.)

Generic Character.

Perianthium sexpartitum patens deciduum. *Filamenta* receptaculo inserta, plerumque barbata. *Stylus* filiformis. *Capsula* subglobosa, 3-loc. 3-valv. valvis medio septiferis. *Semina* pauca, angulata.

Specific Character and Synonyms.

ANTHERICUM *glaucum;* radicibus tuberosis, foliis linearibus elongatis carinatis striatis subtus præcipue glaucis, floribus racemosis, pedicellis ternis nutantibus demum erectis, sepalis tribus interioribus majoribus marginatis marginibus undulatis, filamentis superne incrassatis.

ANTHERICUM glaucum. *Ruiz et Pav. Fl. Peruv. v. 3. p.* 68. *Ræm. et Sch. Syst. Veget. v. 7. p.* 469. *Spreng. Syst. Veget. v. 2. p.* 85. *Lod. Bot. Cab. t.* 1580.

PHALANGIUM glaucum. *Poir. Enc. Suppl. v. 4. p.* 380.

An interesting South American, and, I believe, little known, plant in this country, for tubers of which the Glasgow Botanic Garden is indebted to our often-mentioned friend, JOHN MACLEAN, Esq., of Lima. The species inhabits the vicinity of that city, and requires the heat of the stove to bring it to perfection. It flowered in August and September.

DESCR. The *root* consists of numerous fibres, many of which bear oval, or oblong *tubers*: the top of the root is crowned with copious, rigid, erect fibres, the withered remains

remains of old *leaves*, from which spring the recent ones; these are one and two feet long, linear, tapering, flaccid, striated, keeled, glaucous beneath, but scarcely so above. *Scape* two to three feet high, simple or branched, rounded, glabrous, bracteated; *bracteas* below somewhat leafy; bearing a long raceme of rather large pure white *flowers*, mostly three together from each lanceolate bractea: but of these three, only one opens at a time, and that only for one day. *Pedicels* half an inch or more long, curved in flower, erect before and after. *Sepals* six, spreading, elliptical, the three *outer* the smallest, with a single broad rib; three *inner* larger, with three nerves and a broad, waved margin. *Stamens* six: *Filaments* erecto-patent, remarkably thickened upwards: *Anthers* oblong, yellow. *Germen* oval: *Style* larger than the stamens, somewhat spindle-shaped: *Stigma* terminated with a minute pencil of hairs.

Fig. 1. Flower from which the Perianth is removed:—*Magnified.*

W. Fitch del.

Pub by S. Curtis Glasshouse Wood Essex Oct.1 1825.

THERMOPSIS FABACEA. BEAN-LEAVED THERMOPSIS.

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Class and Order.

DECANDRIA MONOGYNIA.

(Nat. Ord.—LEGUMINOSÆ.)

Generic Character.

Cal. oblongus campanulatusve, 4—5-fidus, subbilabiatus, postice convexus, basi attenuatus. *Pet.* 5, subæqualia, vexilli lateribus reflexis, carina obtusa. *Stamina* persistentia. *Legumen* compressum, falcatum aut lineare, polyspermum.—Herbæ *perennes, sericeo-villosæ.* Folia *trifoliata.* Stipulæ *ovato-lanceolatæ, foliaceæ.* Racemi *terminales, floribus pedicellatis geminis aut subverticillatis flavis. D C.*

Specific Character and Synonyms.

THERMOPSIS* *fabacea;* foliis petiolatis foliolis lato-ovalibus, stipulis lato-ovatis obtusis petiolo brevioribus, racemo alternifloro.

THERMOPSIS fabacea. *De Cand. Prodr. v. 2. p.* 99. *Hook. Fl. Bor. Am. v.* 1. *p.* 128. *Lindl. Bot. Reg. t.* 1272.

THERMOPSIS rhombifolia. *Rich. in Frankl.* 1*st Journ. App. ed. 2. p.* 13. *De Cand. Prodr. v. 2. p.* 99. *Hook. Fl. Bor. Am. v.* 1. *p.* 128. *t.* 47.

THERMIA rhombifolia. *Nutt. Gen. v.* 1. *p.* 283.

CYTISUS rhombifolius. *Pursh, Fl. Am. v.* 2. *p.* 741.

SOPHORA fabacea. *Pall. Astrag. p.* 122. *t.* 90. *f.* 2.

I think there can be little doubt of the correctness of the above synonyms. Now that I have seen the living plant

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* From Θερμος, a *Lupine,* and οψις, a *resemblance:* from the affinity of the species of the Genus, with those of the *Lupine.*

I have no hesitation in referring to it the THERMOPSIS *rhombifolia* of Dr. RICHARDSON. Thus it appears to have a very extended range, being found in the North-eastern parts of Asia, and in North America on both sides of the Rocky Mountains, but no where, as it appears, on the East side of that vast continent. It was introduced to this country through the Horticultural Society, having been sent by Mr. DOUGLAS from dry channels of mountain torrents, in the vallies of the Cordillera near the Columbia river. It is cultivated in the greenhouse of the Glasgow Botanic Garden, where it flowers in May: but Dr. LINDLEY speaks of it as a good herbaceous plant, readily increased by the division of its creeping roots: and it will probably prove quite a hardy plant.

DESCR. *Stem* herbaceous, erect, simple, or branched only upwards, somewhat angular, quite glabrous below. *Leaves* trifoliate, petiolate: *leaflets* obovate, approaching to rhomboid, distinctly veined, glabrous above, slightly downy beneath. *Stipules* very large, foliaceous, nearly ovate, often as long as the petiole, and nearly as large as the leaflets of the leaf. *Raceme* erect, terminal, stalked, of several rather bright, yellow, alternate *flowers*, about the size of those of the *Laburnum*. *Pedicels* short, subtended by an oblongo-ovate *bractea*. *Calyx* ovate, two-lipped, *upper lip* erect, bidentate, *lower* trifid, reflexed: *Vexillum* shorter than the rest of the petals, having a deep carina, spotted within, the sides reflexed. *Alæ* standing forward, oval, covering the *carina* which is nearly of the same shape and very obtuse. *Stamens* ten, free, subulate, nearly equal in length. *Germen* linear, very silky: *Style* short, curved upwards: *Stigma* minute.

Fig. 1. Calyx. 2. Vexillum. 3. Alæ. 4. Carina. 6. Stamens. 7. Pistil:—*Magnified.*

GESNERIA DOUGLASII; β. *verticillata.* MR. DOUGLAS' GESNERIA; whorled *var.*

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Class and Order.

DIDYNAMIA ANGIOSPERMIA.

(Nat. Ord.—GESNERIEÆ.)

Generic Character.

Calyx 5-partitus (plerumque germini adnatus). *Corolla* tubuloso-campanulata, limbo bilabiato; labio superiore bi-inferiore trifido. *Stigma* bilobum. *Capsula* bilocularis, 2-valvis, placentis parietalibus.

Specific Character and Synonyms.

GESNERIA *Douglasii;* herbacea, radice tuberosa, foliis in medio caulis verticillatis ovatis crenatis, cyma terminali umbellata pedunculata, corollæ limbo subæquali, glandulis duabus superioribus dilatatis, inferioribus obliteratis.

GESNERIA Douglasii. *Lindl. in Hort. Trans. v. 7. ejusd. in Bot. Reg. t.* 1110.

GESNERIA verticillata. *Hook. Bot. Mag. t.* 2776.

(β.) *verticillata;* pedunculis subsimplicibus densissime verticillatis. (TAB. nostr. 3612.)

Our former figure of this plant, under the name of GESNERIA *verticillata,* from the first plant that flowered with us, gave no idea of the beauty of this plant: but the present variety exhibits it in the highest degree of perfection. The tubers were imported by Mr. ALLCARD from Rio, and the noble specimen here exhibited blossomed in that gentleman's collection in April, 1836. In Professor LINDLEY's plant the inflorescence is a decided panicle. In ours, the peduncles, generally simple, are arranged in dense whorls, many of them quite simple, the others very slightly branched, and only near the base. The flowers too are larger than in that figure, and more inclining to a purple tint.

W. Fitch. delt

Pub by S. Curtis Glazenwood Essex Nov.r 1 1837.

Swan Sc

MAXILLARIA PUMILA. DWARF MAXILLARIA.

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Class and Order.

GYNANDRIA MONANDRIA.

(Nat. Ord.—ORCHIDEÆ.)

Generic Character.

Perianthium connivens raro patens. *Sepala* lateralia cum basi producta columnæ connata. *Petala* subconformia. *Labellum* trilobum, cucullatum, sessile, cum basi producta columnæ articulatum. *Columna* semiteres, aptera. *Anthera* subbilocularis. *Pollinia* 2, bipartibilia v. integra, caudicula brevi, glandula transversa.—Epiphytæ *(Americanæ) pseudo-bulbosæ, acaules v. caulescentes.* Folia *plicata v. coriacea.* Pedunculi *radicales, axillares v. terminales, uni- v. multiflori. Lindl.*

Specific Name and Character.

MAXILLARIA *pumila ;* nana, caulibus brevibus squamosis pseudo-bulbiferis, bulbis aggregatis oblongis sulcatis, folio solitario lanceolato, pedunculis pseudo-bulbo brevioribus unifloris, petalis sepalisque erectis oblongis obtusis, labello erecto oblongo obscure trilobo disco calloso, lobo terminali bifido.

Sent from Demerara to the Glasgow Botanic Garden by Mr. INVERARITY, to whom we are indebted for many other choice Orchideous plants. It is the smallest of the species with which I am acquainted. It flowers in April and May.

DESCR. *Stems* short, not exceeding two or three inches, bearing many aggregated, small, pseudo-bulbs, half to three quarters of an inch long, which are oblong, deeply furrowed, and partially clothed with brown, sheathing scales. *Leaf* solitary, terminal, an inch, scarcely more, in length. *Peduncle* arising from the scales at the base of the bulb, shorter

shorter than the bulb, bearing a solitary, small, dark purple *flower*. *Sepals* and *petals* erect, nearly equal, oblong, obtuse. *Lip* erect, oblong, obscurely three-lobed, the middle lobe very blunt, emarginate, spreading: at the middle of the upper side is a callous disc. *Column* curved. *Anther-case* hemispherical. *Pollen-masses* four, on a nearly sessile gland.

Fig. 1. Portion of a Plant with Flower. 2. Petals, Column, and Lip. 3. Lip. 4. 4. Anther-case. 5. 6. Pollen-masses:—*magnified.*

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MAXILLARIA HENCHMANNI. MR. HENCHMAN'S MAXILLARIA.

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It is four times the size of that individual, with more copious, paler-coloured scales on the stems and pseudo-bulbs, these latter are broader in proportion to their length, more compressed and even (not furrowed on the surface); the leaf is much longer and more ligulate; the peduncle exceeds the bulb in length; the petals and sepals are acute, and the apex of the lip is not bifid.

Fig. 1. Flower, from which the two lateral sepals are removed. 2. Lip. 3. 3. Anther-case. 4. 4. Pollen-masses:—*magnified.*

W. Fitch delt.

Pub by [illegible] Curtis [illegible] 1 F[illegible] 178[illegible]

Swan.

STENOMESSON CROCEUM. ORANGE-FLOWERED STENOMESSON.

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Class and Order.

HEXANDRIA MONOGYNIA.

(Nat. Ord.—AMARYLLIDEÆ.)

Generic Character.

Tubus sub-rectus medio constrictus superne ventricosus, *limbus* brevis regularis, corona brevis. *Filamenta* recta, *antheræ* incumbentes; *Capsula* late ovata, trisulca, trivalvis, basi valde ampliata.—Folia *lanceolata margine compresso;* bulbus *subrotundus*. *Herb*.

Specific Character and Synonyms.

STENOMESSON *croceum;* folio solitario lanceolato basi attenuato, umbella sub-septemflora, floribus nutantibus aurantiacis, perianthio recto infundibuliformi campanulato segmentis erecto-patentibus, staminibus exsertis.

STENOMESSON * croceum. *Dombey in Herb. Linn. Soc. Herbert, Amaryl. p.* 199.

PANCRATIUM croceum. *Redouté's Liliac. t.* 187.

Of this charming lively-flowered plant we had many specimens flowering in the stove of the Botanic Garden, from bulbs sent by our obliging friend J. M'LEAN, Esq. of Lima. I was disposed to refer it to the PANCRATIUM *coccineum* of RUIZ and PAVON: but Mr. HERBERT, whose opinion is invaluable in this family, refers it to his S. *croceum* above quoted, copied from DOMBEY's original specimen: which it indeed resembles: and this excellent and laborious author is

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* I presume from στενος *narrow*, and μεσος, or μεσσος, the *middle*: from the contraction in the flower below the middle.

is satisfied that Redouté's plant is the same as that of Dombey. But in the ovate, or almost oblong bulb, in the several *linear* leaves, springing from the top of the *old* bulb, in the shape of the flower, and especially its dingy saffron-colour, there appears to me to be very striking differences between Redouté's species and our's. It is to be observed, however, that the French author has not made his figure from the living plant, nor from the plant at all; but, as he has acknowledged, copied it from the collection of vellum drawings in the Museum of the Jardin des Plantes at Paris.

Descr. Old *Bulb* globose, leafless: in some of our plants, a young bulb springs from the side of the old one, terminated by a single, lanceolate *leaf*, tapering below into a *petiole*, the margin slightly reflexed. *Scape* from the top of the old bulb, a foot and more high, terete, bearing an *umbel* of about seven *flowers*. *Spatha* of two membranous, lanceolate *leaves*. *Perianth* of a bright, reddish orange colour, nearly two inches long; for one-third of its length at the base cylindrical, narrow, then gradually widening into a cylindraceo-campanulate *limb*: *laciniæ* six, ovate, erecto-patent. *Stamens* six, alternating with as many linear-oblong *nectaries*, which are situated at the mouth of the tube. *Stamens* and *style* much exserted. *Germen* oval.

Fig. 1. Flower laid open to show the Stamens, Style, and Nectaries:—slightly *magnified*.

POLYGALA MYRTIFOLIA: *var.* grandiflora. MYRTLE-LEAVED MILK-WORT: large-flowered *var.*

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Class and Order.

DIADELPHIA OCTANDRIA.

(Nat. Ord.—POLYGALEÆ.)

Generic Character.

Calycis sepala persistentia, 2 interiora alæformia. *Petala* 3—5, tubo stamineo connexa, inferiore carinæformi (forsan e duobus coalitis constante). *Capsula* compressa, elliptica, obovata aut obcordata. *Semina* pubescentia, hilo caruncu-lata, coma destituta. *D C.*

Specific Character and Synonyms.

POLYGALA *myrtifolia;* foliis obovatis oblongisve submu-cronatis, ramulis pubescentibus, bracteis persistentibus æqualibus, pedicellis flore brevioribus.

POLYGALA myrtifolia. *Linn. Am. v. 2. p.* 138. *Ait. Hort. Kew. ed. 2. v. 4. p. 244. Ker, Bot. Reg. t.* 669. *De Cand. Prodr. v.* 1. *p. 322. Spreng. Syst. Veg. v. 3. p.* 163.

POLYGALA frutescens, foliis oblongis glabris, flore purpureo. *Burm. Afr. p.* 200. *t.* 73. *f.* 1.

(β.) *grandiflora;* floribus majoribus magisque coloratis. (Tab. nostr. 3616.)

POLYGALA grandiflora. *Lodd. Bot. Cab. t.* 1227. *Ekl. et Zeyh. Enum. Pl. Afr. Austr. Extratrop. p.* 19.

The Glasgow Botanic Garden is indebted for the possession of this handsome shrub to the Royal Gardens of Kew, where it was received from Southern Africa. It came under the name of P. *grandiflora,* and is first published as a species distinct from *myrtifolia* by Mr. LODDIGES in the place above quoted. The species is retained by ECKLON and ZEYHER,

Zeyher, who have made no remark upon it; and Mr. Loddiges only observes, that it is "allied to *myrtifolia*, but that its flowers are far more beautiful." This is, indeed, quite correct; but since after the most careful examination I find no other point of distinction, I venture here to describe it as a slight variety of P. *myrtifolia*. It bears its lovely blossoms in April and May, and they continue a long time in perfection, nestled among the yellow-green leaves of the young shoots, at the apex of the branches.

Descr. A much-branched *shrub*, four to six feet high, the young *branches* downy. *Leaves* on very short *petioles*, oblong, or oblongo-ovate, glabrous, except in the young leaves, and somewhat mucronate, of a rather thin, somewhat membranaceous texture. *Flowers* in short *racemes*, which are terminal, but appear lateral from the proliferous shoots. *Pedicels* shorter than the flowers, each with three *bracteas* at the base. Three outer *calycine leaves* green, ovate, mucronate, membranous at the margin: two inner, or alæ, very large, obliquely and broadly ovate, mucronate, rich purple, veiny: *keel* large, veiny, pale, with a deep black-purple blotch at the extremity, a very conspicuous *crest* below the apex, and two bifid auricles at the base above. *Filaments* diadelphous.

Fig. 1. Keel. 2. Stamens. 3. Pistil:—*magnified.*

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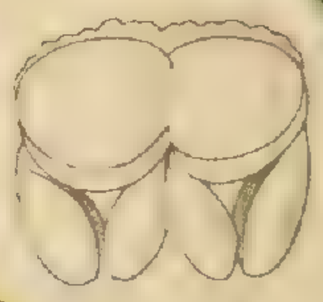

CHYSIS AUREA. GOLDEN-FLOWERED CHYSIS.

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Class and Order.

GYNANDRIA MONANDRIA.

(Nat. Ord.—ORCHIDEÆ.)

Generic Character.

Sepala paulo connata, patula; lateralia pedi producto columnæ adnata et calcar simulantia. *Petala* sepalis conformia. *Labellum* trilobum, patulum, venis basi callosis. *Columna* marginata, canaliculata, mutica. *Anthera* subrotunda, opercularis, glabra. *Pollinia* 8, in laminam luteam semifusa, quatuor exterioribus tenuibus quatuor interiora crassiora abscondentibus. *Rostellum* laminatum, convexum.—Herbæ *epiphytæ, occidentales, ab arboribus pendulæ; caulibus* Cyrtopodii *depauperatis, foliis nervosis basi vaginantibus, racemis lateralibus multifloris. Lindl.*

Specific Name and Synonym.

CHYSIS * aurea. *Lindley Bot. Reg. t.* 1937.

An Orchideous plant of great beauty, discovered by Mr. HENCHMAN in 1834, in the valley of Cumancoa, in Venezuela, and introduced by him to the collection of Messrs. Low of the Clapton Nursery, to whom the Glasgow Garden is indebted for the possession of the plant. It blossomed in the stove in May, 1837, in great perfection. Its mode of growth is singular; for the old stems are constantly pendent, the extremities and young shoots alone curved upwards, characters not easily exhibited in so small a figure as the annexed one.

DESCR.

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* Χυσις, a *melting*: the pollen-masses of this plant being, as it were, fused together. *Lindley.*

Descr. *Stems* long, pendent, branched; the *branches* clavate, some leafless, others with a tuft of foliage from the extremity of the young shoots, which curve upwards. *Leaves* broadly lanceolate, membranous, recurved, striated. *Raceme* from one of the leafy scales which clothe the lower part of the young branches, pendent, many-flowered. *Sepals* and *petals* ovate, moderately spreading, white at the base, the rest yellow, the two *petals* with deeper yellow spots within. *Lip* white, mottled with yellow, and with red streaks, recurved, three-lobed, the two lateral lobes incurved, the terminal one roundish, crisped: at the base are five elevated, velvety, yellow lines, sprinkled with red dots. *Column* short, white, yellow dotted with red within: above the stigma is a white, projecting *lip*, on the base of which lies a part of the *pollen*, which is extremely curious, and better understood by the figure, than by the description. Professor Lindley, the learned author of the Genus, considers it as "equivalent to eight pollen-masses, of which the straps of connection, such as exist in all Epidendreæ, are run together in two plates, from an expansion of the edges of which the masses appear to spring." *Anther-case* hemisphærical, oblique.

Fig. 1. Lip. 2. Column. 3. Upper part of the Column. 4. Pollen: all *magnified*.

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PHILIBERTIA GRANDIFLORA. LARGE-FLOWERED PHILIBERTIA.

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Class and Order.

PENTANDRIA DIGYNIA.

(Nat. Ord.—ASCLEPIADEÆ.)

Generic Character.

Calyx 5-partitus. *Corolla* urceolato-rotata, sinuato-quinqueloba, *lobis* acutis denticulis interjectis; *tubus* brevis, mediante toro carnoso apice quandoque annuliformi et undulato gynostegii (columnæ stamineæ, *Br.*,) basi adnatus. *Corona* staminea simplex, 5-phylla : foliolis carnosis summo gynostegio insertis, integris. *Antheræ* membrana terminatæ. *Massæ pollinis* clavato-cylindraceæ, ad apicem fere affixæ. *Stigma* brevissimum v. breviter rostratum apice biapiculatum.—Frutices *volubiles*. Folia *opposita basi cordata*. Umbellæ *interpetiolares*.

Specific Name and Character.

PHILIBERTIA* *grandiflora ;* ubique molliter pubescens, corolla rotato-campanulata, coronæ stamineæ foliolis rotundato-gibbosis rostratis vertice depressis, stigmate bifido.

An extremely handsome Asclepiadeous plant, of which seeds were sent by Mr. TWEEDIE from Buenos Ayres to Mr. MURRAY of the Glasgow Botanic Garden, and to Mr. NIVEN, at Glasnevin Gardens, Dublin ; in both which establishments they flowered in the summer of 1837. The plant is a native of Tucuman, and will probably succeed well in a good greenhouse.

DESCR.

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* Thus named in honor of J. C. PHILIBERT, who published an elementary work on Botany.

Descr. *Plant* very soft with fine down, twining. *Leaves* opposite, cordato-acuminate, with a deep and acute sinus, longer than the petioles. *Peduncles* axillary, bearing *umbels* of large, handsome, downy *flowers*. *Calyx* in five deep, acuminated segments. *Corolla* more than an inch across, between rotate and campanulate, with five triangular segments, and a small tooth beween them, cream-coloured, prettily dotted and streaked with purple within. *Column of fructification* short. *Leaflets* of the *staminal crown* large, ovato-globose, gibbose, fleshy, pale-green, the apex obliquely beaked, depressed on the top. *Style* short: *Stigma* bifid.

Fig. 1. Column of Fructification. 2. The same with the leaflet removed: —*magnified.*

W. Fitch. del.

Pubd by S. Curtis Glasenwood Essex Decr 1. 1837

DOMBEYA CANNABINA. HEMP DOMBEYA.

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will equally require modification. It has the less spreading petals and the long staminal tube of Astrapæa, but the inflorescence, and the absence of involucre of Dombeya: in the constantly bibracteated and quinquefid, not five-leaved calyx, it differs from both: but I can hardly think these characters of sufficient importance to constitute a distinct Genus:—on the other hand, I would rather be inclined to the original opinion of Dr. Wallich, that Astrapæa might safely be referred to Dombeya. The fruit, however, both of that plant and of the present, is still a desideratum. Our plant flowered with us for the first time in March, 1837.

Descr. *Stem* almost arboreous, of rapid growth, with moderately spreading branches. *Leaves* on long *petioles*, cordate, and generally three-lobed, serrated, very slightly downy beneath. *Stipules* rather large, ovato-lanceolate, deciduous. *Peduncle* axillary, six to eight or ten inches long, pendulous, and, as well as the pedicels, bracteated. *Corymb* of many closely-placed *flowers*, yielding a rather disagreeable and peculiar odour. *Calyx* very pale greenish-white, downy, five-cleft; segments erect, oblong. At the base of the calyx, on one side, are two oblong, spathulate *bracteas*, as long as the flower. *Corolla* (filled with a honey-like juice) of five imbricated, convolute, nearly erect *petals*, white, obcordate. *Staminal tube* twice or thrice as long as the flower, white with a tinge of red: *Anthers* about fifteen, two-celled, within which are a few abortive ones. *Germen* nearly globose, covered with dense, white, silky hairs: *Style* longer than the stamens: *Stigma* five-cleft.

Fig. 1. Flower with its Bracteas. 2. Pistil:—*magnified*.

W. Fitch delt. Pub by S. Curtis Glazenwood Essex Dec.r 1 1837. Swan Sc.

BOUSSINGAULTIA BASELLOIDES. BASELLA-LIKE BOUSSINGAULTIA.

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Class and Order.

HEXANDRIA MONOGYNIA.

(Nat. Ord.—CHENOPODEÆ.)

Generic Character.

Perianthium 6—8-phyllum, basi bibracteatum. *Stam.* 6 sepalis opposita. *Ovarium* ellipticum. *Stylus* filiformis basi incrassatus. *Stigmata* 3, clavæformia. " *Fructus* subrotundus, lenticulari-compressus, membranaceus, monospermus, indehiscens, stylo persistente coronatus. *Semen* reniforme, læve, sessile. *Embryo* curvatus."—Frutex *volubilis*. Folia *alterna, integerrima, exstipulata, carnosa*. Flores *racemosi, fragrantes*. Radix *tuberosa*.

Specific Name and Synonyms.

BOUSSINGAULTIA* baselloides. *Humb. et Kunth, Nov. Gen. v. 7. p.* 196. *t.* 645 *bis*. *Spreng. Syst. Veget. cur. post. p.* 108.

I cannot doubt this being the BOUSSINGAULTIA of HUMBOLDT and KUNTH, although the description of those authors is somewhat at variance with our plant; not more so, however, than may be accounted for on the supposition that their description was made from a dried individual. I have received specimens from various parts of South America; but its native country appears to be near Loxa, in the Quitinian Andes. It is indeed a most desirable stove plant, growing rapidly, and bearing copious and graceful racemes

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* Named in honor of J. B. BOUSSINGAULT, a celebrated Naturalist and South American Traveller.

racemes of flowers, which are deliciously fragrant. Mr. Tweedie introduced it to our gardens from Buenos Ayres, and we have specimens both from the Glasgow and Glasnevin Botanic Gardens. Mr. Niven observes that the quantity of mucilage contained in the root is quite remarkable, and the bulk of roots produced altogether astonishing. He has one root of not less than four pounds weight. At Glasnevin, indeed, it has stood the winter in the open air at the bottom of a wall.

Descr. *Root* formed of oblong, fleshy, knotted, and in the younger state, somewhat scaly *tubers*, frequently of a large size, bearing a few fibres, and throwing up from one extremity a rounded, and branched *stem*, which twines from left to right, and is quite glabrous, (as is the whole plant,) somewhat woody at the base, the rest herbaceous and green. *Leaves* fleshy, alternate, jointed as it were upon the stem, cordate, acute, from an inch and a half to four and five inches long, on the lower part of the stem, *penninerved*, quite entire: *petiole* about an inch long, compressed, broad upwards. *Stipules* none. *Racemes* axillary, pendent, three to five inches long, bearing many greenish-white, deliciously fragrant flowers. *Pedicels* with a small, subulate *bractea* at the base, and at the top are two small, ovate ones, closely pressed to the base of the perianth. *Perianth* single, thin, and membranaceous, deeply cut into six oval, soon becoming reflexed *sepals*, of which three are more external: often there is one or *two* (and *these* opposite) large scales or sepals on the outside of these, in form, colour, and texture resembling the segments of the perianth. *Stamens* six, inserted at the base of the segments and opposite to them. *Filaments* subulate, spreading: *Anther* fixed by the back, shortly-oblong, opening by two clefts. *Germen* superior, ovate, white, abortive: *Style* shorter than the filament: *Stigmas* three, clavate, white, furrowed at the back. The fruit has never been perfected in this country.

Fig. 1. Flower. 2. Pistil:—*magnified.*

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W Fitch del.

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PHILODENDRON CRASSINERVIUM. THICK-RIBBED PHILODENDRON.

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Class and Order.

MONŒCIA TETRANDRIA.

(Nat. Ord.—AROIDEÆ.)

Generic Character.

Spatha tota persistens, post florescentiam reclusa. *Spadix* dense obsitus, appendice cereus. *Antheræ* singuli floris liberæ. *Ovarium* multi (5—15)-loculare, loculis pluriovulatis, ovulis axi affixis erectis.—Plantæ *Americanæ tropicæ, succo decolori, rhizomate in caulem elongatum scandentem v. arborescentem mutato, foliis remotis, vaginis petiolaribus brevissimis stipularibus elongatis deciduis folio oppositis. Schott.*

Specific Character and Synonym.

PHILODENDRON * *crassinervium;* foliis lanceolatis acuminatis costa crassissima inflata, spatha obtusa cucullata apiculata spadicis longitudine. *Lindl.*

PHILODENDRON crassinervium. *Lindl. in Bot. Reg. t.* 1958.

A singular climbing Aroideous plant, which would have been considered a *Pothos* of former Botanists, a Genus now appropriately separated into many others by SCHOTT of Vienna. Our flowering specimen was sent from the Edinburgh Botanic Garden, by Dr. GRAHAM, in May, 1837.

DESCR. *Stem* running to a considerable length, thick, rounded, fleshy, glabrous, as is every part of the plant: at intervals

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* φιλεω, *to love,* δενδρον, *a tree;* from the circumstance of the species attaching themselves to trees in the tropical forests.

intervals throwing out roots from below, and there producing a large, brown, amplexicaul scale opposite to the insertion of a leaf. *Leaf* one to two feet long, broadly lanceolate, coriaceous, petiolated, acute, margined with red, above deep green, beneath pale : the costa exceedingly thick and inflated ; from each side of the costa arise numerous parallel nerves : *petiole* three to four inches long, rounded, purplish green, having a sheath within at the base, from which the spatha arises. *Peduncle* shorter and thicker than the petiole, pale green spotted with purple. *Spatha* somewhat cylindrical, cucullate, acute, contracted in the middle, pale yellow-green spotted with red, thick and fleshy, bright red within at the base. *Spadix* cylindrical, as long as the spatha, densely covered in the lower part with *pistils ;* the rest with stamens, those at the base abortive. *Germen* subglobose : *Stigma* large, depressed, wrinkled, sessile. *Stamens* peltate, angled, bearing the linear cells on the sides.

Fig. 1. Spadix removed from the Spatha ; *nat. size.* 2. Stamen. 3. Pistil :—*magnified.*

W Fitch del.

Pub by S Curtis, Glasenwood Essex Dec.r 1 1837

DODECATHEON INTEGRIFOLIUM. ENTIRE-LEAVED AMERICAN COWSLIP.

Class and Order.

PENTANDRIA MONOGYNIA.

(Nat. Ord.—PRIMULACEÆ.)

Generic Character.

Calyx 5-partitus, laciniis reflexis. *Corolla* 5-partita, laciniis limbi reflexis. *Stamina* filamenta brevissima, latiuscula, tubo insidentia. *Antheræ* sagittatæ in rostrum conniventes. *Stylus* staminibus longior, simplex. *Capsula* apice dehiscens dentibus 5. *Spr.*

Specific Character and Synonyms.

DODECATHEON* *integrifolium ;* foliis spathulatis integerrimis, umbellis plurifloris, pedunculis divaricatis, bracteis ovatis, filamentis elongatis in tubum connatis.

DODECATHEON integrifolium. *Mich. Fl. Am. v.* 1. *p.* 123. *Pursh, Fl. Am. v.* 1. *p.* 136. *Roem. et Sch. Syst. Veget. v.* 4. *p.* 132. *Spreng. Syst. Veget. v.* 1. *p.* 673. *Richards. in Frankl. Journ. ed.* 2. *App. p.* 6.

A very distinct and beautiful species of a very small Genus, first described by MICHAUX from plants found by him

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* This Name is said to have been conferred by PLINY on some plant or other, which he considered to display in itself the majesty of all the Divinities. Of these it is well known that the Romans enumerated twelve principal ones; six male and six female. The DODECATHEON of modern authors has, however, nothing to do with the individual to which PLINY applied so grand a designation, as it is a native of the New World, and received its name in allusion to the number of the flowers, frequently twelve, which it bears in each head.

him in the Alleghany Mountains, since found abundantly by Dr. Richardson in the woody country of British North America as far as Carlton House Fort, and by Mr. Drummond in the Rocky Mountains. The latter Naturalist sent seeds to this country, from which plants were raised at the Edinburgh and Glasgow Botanic Gardens. Another entire-leaved species with sessile anthers, was found by Dr. Richardson on the Arctic shores, and by other Naturalists in North-West America: this is the D. *frigidum* of Cham. and Schlecht. in the Linnæa: and we possess another and a new species of the Genus in Mr. Douglas' last collections in the interior of North-West America.

Descr. *Root* perennial, throwing up a tuft of rather pale green, spathulate, quite entire *leaves*. *Scape* eight to ten inches high, glabrous, rounded, terminated by an umbel of from eight to ten or twelve handsome *flowers*. *Peduncles* spreading, surrounded by an involucre of five to seven ovate *bracteas*, and several smaller bracteas within. *Flowers* drooping. *Calyx* of five, spreading, ovate, acute segments. *Corolla* rotate, soon reflexed, the short *tube* white with a yellow ring; the *limb* reflexed. *Filaments* much exserted, and united into a yellow, fleshy tube, almost as long as the anthers: *Anthers* meeting in a cone, lanceolato-subulate, greenish-yellow, purple on the back. *Germen* globose: *Style* filiform, longer than the stamens: *Stigma* capitate.

Fig. 1. Upper part of the Scape with its Bracteas. 2. Calyx and Pistil. 3. Staminal Tube laid open:—*magnified*.

Pub by S Curtis Glazenwood Essex Dec.1 1837

Swan. sc

Papaver Gariepinum. South-African Poppy.

Class and Order.

Polyandria Monogynia.

(Nat. Ord.—Papaveraceæ.)

Generic Character.

Sepala 2 convexa, decidua. *Petala* 4. *Stamina* numerosa. *Stylus* o. *Stigmata* 4—20, radiantia, sessilia super discum ovarium coronantem. *Capsula* obovata, 1-locularis, e carpellis 4—20 in thalami productione membranacea inclusis constans, sub stigmatum corona valvulis brevibus dehiscens. *Placentæ* intervalvulares, intus in dissepimenta incompleta productæ.—Herbæ *perennes succo albo fætæ.* Pedunculi *ante florescentiam apice inflexi.* *D C.*

Specific Character and Synonyms.

Papaver *Gariepinum;* capsulis glabris obovato-oblongis, sepalis setosis, caule multifloro setis innumeris horrido, foliis sessilibus hispidis sinuato-pinnatifidis, lobis distantibus ovatis.

Papaver Gariepinum. *Burchell, Afric. Trav. v.* 1. *p.* 318. *De Cand. Prodr. v.* 1. *p.* 119. *Spreng. Syst. Veg. v.* 2. *p.* 570.

When Mr. Burchell reached the river Gariep in Southern Africa, in lat. 29° 40′ 52″ S., he says, in his valuable Travels, "Along the bank I found a Poppy four feet in height, with a showy bright-red flower, like that of our common English Corn Poppy; an interesting and unexpected discovery, in these southern latitudes, of a Genus so decidedly northern." Our figure represents this species, which was raised by Mr. Murray in the Glasgow Botanic Garden, from seeds sent by Baron Ludwig. It is remarkable

able for the strong, spreading bristles, varying in size, indeed, but most of them very large, with which almost every part of the plant is clothed. There is, however, an Australian species, which seemed very nearly allied to this, the P. *horridum* of De Candolle: whether distinct or not I am unable to say.

Our plant flowered under a frame the latter end of May and beginning of June. Placed in the open border it seemed very susceptible of our (in this year, 1836) unusually cold and fickle summer.

Descr. *Root* annual, or perhaps biennial. *Stem* erect, a foot and a half to two feet high, rounded, branched, clothed, as is every part of the plant, except the flowers) with copious, spreading, and very harsh bristles, unequal indeed, in size, but most of them very large. *Leaves* oblong-lanceolate; those of the root and lower part of the stem somewhat petiolate, pinnatifid, the segments distant, oblong-ovate, the margin every where toothed, the teeth bristle-pointed; upper leaves sessile, inciso-serrate, gradually smaller. *Flowers* scarcely two inches across, on hispid peduncles, which are somewhat panicled. *Sepals* two, oval, concave, hispid. *Petals* obovato-rotundate, somewhat clawed, very obtuse, wavy, pale brick-colour approaching to orange. *Stamens* numerous. *Germen* oblong, a little thickened upwards, slightly furrowed and torulose, quite glabrous. *Stigma* conico-depressed, of few rays. *Capsule* of the same shape with the germen, opening by large apertures beneath the stigma.

Fig. 1. Capsule, *nat. size*. 2. The same, *magnified*.

Pub.d by S. Curtis Glasenwood Esex Dec.r 1.1793 .

Swan Sc.

DRACOPHYLLUM CAPITATUM. ROUND-HEADED DRACOPHYLLUM.

Class and Order.

PENTANDRIA MONOGYNIA.

(Nat. Ord.—EPACRIDEÆ.)

Generic Character.

Calyx bi- v. ebracteatus. *Corolla* tubulosa, limbo 5-partito patenti, imberbi. *Stamina* epipetala v. hypogyna. *Squamulæ* 5 hypogynæ. *Capsula* placentis ab apice columnæ centralis pendulis solutis.—Frutices *v.* Arbusculæ, *ramis dum denudatis annulatis.* Spicæ *v. racemi terminales ; illæ simplices, hi quandoque compositi. Br.*

Specific Character and Synonyms.

DRACOPHYLLUM * *capitatum ;* ramis floriferis spica ovata multoties longioribus, foliis caulinis ensiformi-lanceolatis erectiusculis, rameis adpressis.

DRACOPHYLLUM capitatum. *Br. Prodr. Fl. Nov. Holl. p.* 557. *Spreng. Syst. Veget. v.* 1. *p.* 629.

A very pretty New Holland Plant, which has for some years annually produced its white heads of flowers in the greenhouse of the Glasgow Botanic Garden, in the summer months.

DESCR. A *shrub* about a foot and a half high, with erect, twiggy *branches*. *Leaves* ensiformi-lanceolate, pungent, dark green, tipped with red and somewhat spreading on the stem ; paler coloured, smaller, and close-pressed upon the branches.

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* δρακος, *draco*, and φυλλον, *a leaf ;* from the resemblance of the leaves to those of DRACÆNA *Draco*.

branches. *Flowers* in terminal heads, pure white, very delicate. *Bracteas* two at the base of the calyx. *Corolla* salver-shaped, the *limb* of five spreading, very obtuse, obovate *segments*: the *mouth* contracted. *Stamens* from the tube of the corolla, included: *Anthers* reddish-purple: *pollen* and *filaments* white. *Germen* globose, green, with five hypogynous glands. *Style* thickened upwards, shorter than the corolla. *Stigma* obtuse.

Fig. 1. Flower. 2. Pistil and hypogynous Glands. 3. Stamens:—*magnified.*

W. Fitch del.

Pub. by S. Curtis. Glanerwood Rosa Dec.r 1 1837.

CHRYSOCOMA SQUAMATA. SCALY-STALKED GOLDYLOCKS.

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Class and Order.

SYNGENESIA ÆQUALIS.

(Nat. Ord.—COMPOSITÆ.)

Generic Character.

Capitulum multiflorum homogamum: flosculi tubulosi. *Pappus* pilosus, uniserialis. *Achenium* erostre plano-compressum.—Fruticuli *vel* herbacei; foliis *linearibus, sparsis, integris;* capitulis *terminalibus solitariis, luteis;* involucris *imbricatis.*

Specific Character and Synonyms.

CHRYSOCOMA * *squamata;* pubescens, ramis elongatis gracilibus, foliis lineari-oblongis acutis subtus niveo-tomentosis, summis squamæformibus, involucri squamis acutis scariosis.

CHRYSOCOMA squamata. *Labill. Nov. Holl. v. 2. p. 40. t. 184. All. Cunn. in Field's N. S. Wales, p. 359. Spreng. Syst. Veget. v. 3. p. 425.*

A very pretty, perennial, suffruticose plant, native of Van Diemen's Land, where it was discovered by LABILLARDIERE, (and whence seeds were sent by RONALD GUNN, Esq., to the Glasgow Botanic Garden,) and about Cox's River, N. S. Wales, according to Mr. ALLAN CUNNINGHAM. It flowers in the greenhouse during the month of May.

DESCR. *Stem* much branched from the base, where it appears to be shrubby, and of a red-brown colour: *branches* downy,

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* χρυσος, *gold,* and κομη, *hair;* from the golden heads of flowers.

downy, erect, slender, virgate, leafy throughout. *Leaves* linear-oblong, or linear-lanceolate; the lowermost an inch and a half or two inches long and acute, the rest shorter and more obtuse, passing gradually upwards into small scales, which are numerous below the flowers, nearly glabrous above, beneath clothed with white down. *Flowers*, or *Capitula*, terminal, solitary, yellow. *Involucre* bell-shaped; its scales numerous, imbricated, acute, scariose, dark brown at the tip. *Florets* numerous, densely crowded. *Corolla* infundibuliform, five-cleft. *Anthers* and *Stigmas* included. *Germen* oblong. *Hairs* of the *Pappus* slightly feathery.

Fig. 1. Floret. 2. Upper part of the Style and Stigmas. 3. Hair from the Pappus:—*magnified.*

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